International Security Negotiations: Lessons Learned from Negotiating with the Russians on Nuclear Arms

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FOREWORD

We are pleased to publish this sixty-second volume in the *Occasional Paper* series of the United States Air Force Institute for National Security Studies (INSS). It presents a major history and analysis of over 70 years of diplomatic context and security negotiations between the United States and the Soviet Union/Russia focused on national security and specifically nuclear arms. The author and friend of INSS, Mike Wheeler, is one of the undisputed "deans" of strategic security and arms control; one of those few keen observers who has lived the history yet can present that experience within a fair and focused analytical framework to inform current and future security negotiations. While Mike Wheeler predates application of the INSS model, he represents our goal of developing strategic perspective within the US Armed Forces. He was a strategic leader in uniform, and he continues to serve now in retirement. We salute his career and continuing contributions.

International security negotiations and agreements (one seldom sees the term "arms control" in active government parlance today) have always been a focus of debate within the political and policy communities. The debate weighs the "promises" on one side against the "pitfalls" presented by the other, with varied interpretations of the relative danger or effectiveness of each individual negotiation or treaty. This paper cuts through much of that debate, presenting detailed analyses of diplomacy, negotiations, and agreements prior to, across, and beyond the Cold War. It examines motivations and expectations, rationale for results, criteria for "success," key factors that explain various outcomes, and draws lessons for today and beyond. From the early nuclear age experience of the Baruch Plan (and Wheeler is perhaps THE expert here), through negotiations on testing, across the Nuclear Nonproliferation Treaty, and through detailed development of the strategic and theater arms limitation, reduction, and elimination negotiations, Wheeler develops the negotiations and agreements in relevant detail.

He then presents a balanced discussion of the relative and weighted contributions of the overall process and its products, giving both sides of the debate its due. But perhaps even a bigger contribution than this historical journey and analysis is Wheeler's development of the "lessons" that we should draw to apply today and into the future. He draws general observations about international security negotiations, and then presents equally sharp

"lessons" on both the United States and Soviet/Russian negotiation behaviors. This template—negotiations process, self knowledge, adversary/opposite party insights—should apply to any security discussion and decision. And he ends with five general "lessons" on international security negotiations and five "general principles" of negotiations that should also frame our approach to all cooperative security discussions and efforts today and tomorrow. INSS thanks Mike Wheeler for offering this impressive work for our publication, and we commend it to all students and practitioners of strategic security.

About the Institute

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INSS coordinates and focuses outside thinking in various disciplines and across the military services to develop new ideas for defense policy making. To that end, the Institute develops topics, selects researchers from within the military academic community, and administers sponsored research. It reaches out to and partners with education and research organizations across and beyond the military academic community to bring broad focus to issues of national security interest. And it hosts conferences and workshops and facilitates the dissemination of information to a wide range of

private and government organizations. In these ways, INSS facilitates valuable, cost-effective research to meet the needs of our sponsors. We appreciate your continued interest in INSS and our research products.

//signed//

JAMES M. SMITH, PhD Director



INTERNATIONAL SECURITY NEGOTIATIONS: LESSONS LEARNED FROM NEGOTIATING WITH THE RUSSIANS ON NUCLEAR ARMS

INTRODUCTION

This paper examines arms control and non-proliferation negotiations during and after the Cold War. To make the analysis of this vast topic manageable, the discussion concentrates on negotiating with the Russians (recognizing that the USSR was more than Russia) and, primarily, on negotiations to eliminate or control nuclear arms. American Cold War policy was focused largely through the lens of how to contain and deter Russian expansion and aggression. The intense military competition was at the heart of this struggle, and the nuclear balance was at the heart of the military strategies on both sides.

Why did the United States enter into nuclear arms control negotiations? What did the US government expect to achieve? How did the negotiations evolve over time? How were they related? What made for a successful negotiation and, indeed, what were the criteria of success? Were they shared by the executive and legislative branches and did the criteria shift with whomever was in the White House? What variables played the most significant roles in successful negotiations? Style and tactics? Strategy and substance? Mood? Setting and negotiating venue? Knowledge of the opponent and his objectives? Interagency discipline? Public diplomacy? Factors external to the negotiations? Most importantly, what lessons are relevant to today's security environment?

The paper will address these sorts of questions by first briefly examining the early negotiating experience with Russia from 1933 to the final days of World War II (where the focus was not on arms control), then turning to the experience after the war (where arms

control slowly became the focus), then turning to the post-Cold War experience (where arms control moved away from the center of the US security agenda). To further make the topic manageable, the arms control topics that will be analyzed most extensively include the following:

- The Baruch Plan;
- Nuclear testing (LTBT, TTBT, PNET, CTBT);
- The Nuclear Non-proliferation Treaty (NPT); and
- Strategic and theater nuclear arms (SALT, ABMT, START, INF, SORT).

The point of the discussion is not analysis for analysis' sake but to search for lessons that might be of value to American policy today and in the future.

BACKGROUND

The United States began its existence wary of foreign treaties, especially treaties involving national security arrangements. After a brief security treaty relationship with France that helped obtain American independence (but from which the US soon disengaged itself after the French revolution), and after negotiation of various peace settlements with Britain following the war of independence and not concluding until after the War of 1812, the United States managed to avoid entering into serious international security negotiations for more than a century. If one excludes the conventions, covenants, and practices addressing commerce and trade, American foreign policy for most of its early history was thoroughly and satisfactorily isolationist. The republic relied for its security on the protective expanse of two vast oceans, on a relatively benign Western hemisphere where US dominance was increasingly assured, and on the broader *Pax Britannia* that prevailed into the early 20th century.¹

The sentiment to remain free from entangling commitments and institutions lasted longer than many remember. As the Cold War was ending, for instance, the late Eugene V. Rostow after a long and distinguished career in international law, American diplomacy, and arms control, wrote of the continuing fascination of many Americans with a collectively remembered past in which international security negotiations played little or no role.

The common American perception of our nineteenth-century experience in foreign affairs is still an immensely powerful part of the national outlook. The popular understanding of Washington's Farewell Address and the Monroe Doctrine has the force of a commandment. That this perception is largely mythical does not weaken its influence. In their hearts, nearly all Americans believe that the natural and rightful role of the United States in world politics is one of isolation and neutrality, living at peace in a Western Hemisphere carefully insulated from the wickedness and corruption of Europe and Asia. The power of this belief is so great that the principal problem of American foreign policy, in my experience, is a conflict between our collective unconscious and the realities of life in the late twentieth century.²

Indeed, in the early years after the Cold War, many of America's traditional allies feared that the United States again would choose to withdraw from world political affairs to concentrate on its traditional commercial agendas.

As for arms control, one can date the modern era of arms control as beginning with the Hague Conferences of 1899 and 1907 and the conventions they produced.³ The United States played a modest but constructive role at those conferences, with modest being the operative word. It is fair to say that prior to World War II the American national security negotiating experience was episodic, on the margins of national security policy, and often fell short of achieving a domestic consensus for the results. This was especially true for collective security and arms control efforts after the First World War.

President Wilson's vision for a League of Nations was rejected by the US Senate in 1920. The 1925 Geneva Convention—formally The Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare—was signed by the United States but faced strong congressional opposition and was not brought to a vote at the time on the Senate floor. The various naval limitation treaties of the interwar years did not prevent major arms races nor did the international disarmament conference of the 1930s. Germany circumvented the disarmament clauses of the 1919 peace settlement and, when it served Hitler's purposes, abruptly withdrew from the League.

For many in the generation of Americans that had come to maturity in World War I, that uneasily watched the interwar years, that fought or served in US government positions in War II, and that now found the United States thrust into a role of global leadership in the postwar world, the lesson was clear. Isolation no longer was an option for securing America's vital interests. Technology and geopolitics had changed the threat equation. National security negotiations moved to the center of American foreign policy as American officials took a leading role in creating and launching the United Nations system, securing base rights and status of forces agreements around the globe, entering into treaties establishing alliances, arranging the details of military assistance programs, and conducting a host of other such endeavors that helped define American national security policy after 1945. This also was the world in which the United States began to grapple with the lethal challenges posed by nuclear weapons. One kind of international security negotiation in particular—arms control assumed an especially important role in the new nuclear age and is the subject of this paper.

Arms control is an enormous subject. The most widely accepted definition of arms control is the one used by Thomas Schelling and Morton Halperin in the early 1960s namely, "all the forms of military cooperation between potential enemies in the interest of reducing the likelihood of war, its scope and violence if it occurs, and the political and economic costs of being prepared for it." Even this definition is not broad enough to delineate the range of arms control and disarmament activities the United States has engaged in since 1945—formal treaties, informal protocols, confidence and security building measures, unilateral initiatives, declaratory policies, and the like. Arms control agreements are negotiated in bilateral or multilateral forums and with allies and non-aligned states as well as with adversaries. There also is a domestic component. Sometimes the hardest negotiations are in the interagency process and with the Congress.

Anatoly Dobrynin, Moscow's ambassador to six American Cold War presidents, asserted in his memoirs that "arms control...during the whole of postwar history represented the core of Soviet-American relations." That rings true. Arms control came to dominate US-Russian foreign ministers meetings and summits. In May 1989, on his first visit to Moscow, the new Secretary of State, James Baker, recalled later that while his overriding mission was to reassure Gorbachev and Shevardnadze that the United States supported their reform agenda, the United States also wanted "to move away from what...was an overemphasis on arms control, to strengthen...relations by focusing more on regional and transnational issues, and to redefine...[the] dialogue on human rights into discussions about 'institutionalizing democracy."

Condoleezza "Condi" Rice, then a member of the NSC staff with the Soviet portfolio, accompanied Baker on many of his negotiating

visits. Later as a senior campaign adviser to Governor George W. Bush of Texas, then as his National Security Adviser in his first term as President and as his Secretary of State in the second term, Condi Rice has helped shape policies to shift the US-Russian relationship to a point that it should not need to rest on arms control. Whether that will remain the case is an open question.

What has been the US-Russian negotiating experience? One could answer this question by going as far back as Francis Dana's unsuccessful mission to Russia in 1780 to seek Russian recognition of the new American republic, or to the Hague conferences that were held at the behest of the Russians. For purposes of this paper, we will begin in the early 1930s.

NEGOTIATING WITH RUSSIA, 1933-1945

During the first few months of 1933 in anticipation of upcoming negotiations with the Soviets on the conditions under which the United States would extend diplomatic recognition (broken since the Bolshevik Revolution) to the Soviet government in Moscow, George Kennan, then a junior consular official in Riga, spent several weeks analyzing the commercial treaties the Russians had concluded with other governments. His goal was to see which treaties if any had protected the interests of the other parties. Kennan sent his findings to Washington in a report in April 1933, drawing attention to examples of treaty language that experience showed should be avoided. His advice was ignored. When the Soviet foreign minister (then called commissar of foreign affairs) Maxim Litvinov came to Washington in November 1933 to negotiate the terms of recognition, the type of language that Kennan had objected to was included in the recognition agreement without challenge.

Kennan recalls in his memoirs that "the episode has remained in my mind as the first of many lessons I was destined to receive, in the course of a diplomatic career....⁹ Kennan suspected that his advice was ignored because the Roosevelt administration wanted a diplomatic recognition package that minimized the chances of domestic opposition and thus glossed over the possibility that the Soviets might violate certain aspects of the agreement. Charles E. "Chip" Bohlen, one of Kennan's contemporaries and close associates, talks of early US-Russian negotiations as reflecting the American tendency to neglect detail in the conduct of its diplomacy, the difficulties of negotiating with a regime whose roots lay in rejecting traditional diplomacy, and the centralized, thoroughly bureaucratic nature of the Soviet system on all matters ranging from the trivial to the important. Bohlen recalls in his memoirs that in 1934, as the new American representatives in Moscow sought to obtain a lease for an American embassy compound on the banks of the Moscow River, "... negotiations foundered almost from the beginning." The American negotiating experience with the Russians thus was difficult and unpromising from the start.

During World War II, when Russia was considered an ally from the summer of 1941 through the end of the war, prickly negotiations took place on the details of lend-lease assistance, on the American attempt (largely unsuccessful) to obtain bases on Soviet territory for shuttle-bombing raids, on seeking information on Soviet military operations against Germany, and—largely at the Teheran, Yalta, and Potsdam summits—on the preliminary details of the peace settlements and the political organization for the postwar world. A good sense of the level of American frustration in these talks is conveyed in the memoirs of George Kennan and Chip Bohlen, already cited, and in the memoirs of Roosevelt's special envoy and then ambassador to Stalin,

W. Averell Harriman. As the end of the war approached, a passage from Harriman's wartime account nicely captures one aspect of Franklin D. Roosevelt's attitude toward the Russians. At a private luncheon on March 23, 1945, less than a month before his death, Roosevelt reportedly told a luncheon companion

"Averell is right. We can't do business with Stalin. He has broken every one of the promises he made at Yalta." Anna O'Hara McCormick, who had seen the President the day he left Washington for Warm Springs [where he would die], later shared with Harriman her recollection of that final talk. The President told her that he had fully believed what he said in his report to the Congress on the Yalta Conference decisions. But he had found that Stalin was not a man of his word; either that or Stalin was not in control of the Soviet government.

President Roosevelt's jaundiced opinion on negotiating with Stalin may have been even gloomier if he had realized how Stalin relied on espionage to shape his negotiating strategy. At Yalta, for instance, Stalin had access to confidential information passed on to the Soviets by at least one senior member of the American delegation on what and how the Americans intended to negotiate.¹²

Despite the difficulties that Stalin posed, other sources such as Roosevelt's final correspondence with Churchill suggest that Roosevelt remained convinced to the end that there was no other reasonable alternative in postwar security to trying to work out a negotiated political settlement with the Soviet government. Roosevelt and his contemporaries had seen how power politics failed to prevent the carnage of two world wars. Another world war, even without the reality (soon to be realized) of the atomic bomb, could in their estimation threaten the survival of Western civilization. Negotiating with the Russians had to be pursued out of lack of attractive alternatives, not as a policy of choice.

Harry S. Truman had been Vice President for less than three months when President Roosevelt died of a massive cerebral hemorrhage on April 12, 1945. Roosevelt had not taken Truman into his confidence in managing the war or in preparing for the postwar world, leaving Truman heavily dependent in his early days in office on the advice and opinions of senior American officials who had dealt with those issues. None of them could speak authoritatively for Roosevelt who was an extremely secretive man. Truman sought to retain as much continuity as possible with the Roosevelt policies which he tried to better understand. Truman presided over the end of the war in Europe, attended the Potsdam summit, and used the atomic bomb to force a Japanese surrender, with no better formed attitude toward the possibility of cooperating with the Soviets than Roosevelt had possessed and with much less personal experience on which to base his instincts. There is considerable evidence, however, that Truman soon came to a conclusion similar to that of Roosevelt: the Soviets would circumvent or violate agreements when expedient and could not be trusted in the ordinary sense of the term, but there was no good alternative to not continuing as robust an effort as possible to secure Soviet cooperation in security arrangements for the postwar world. This required communication and negotiations. It is with this in mind that we can begin considering the arms control negotiations in the postwar world.

THE BARUCH PLAN

It has become conventional wisdom since the early 1960s to accept the view first advanced by Schelling and Halperin "that arms control is a promising, but still only dimly perceived, enlargement of the scope of our military strategy." In fact, a good argument can be made when reviewing the genesis of the Baruch Plan that the link between military

strategy and arms control was recognized by American officials in practice, if not in theory, from the start of postwar arms control.

The United States emerged from World War II with two principal institutional arrangements for global security: the Council of Foreign Ministers which was supposed to be the forum for the postwar peace settlements, and the newly formed United Nations. When the first meeting of the Council of Foreign Ministers in London from September to October 1945 ended in deadlock, President Truman soon reached the conclusion (shared by the British government) that unless and until the status of the atomic bomb could be resolved satisfactorily with Russian authorities, there was little prospect for progress on postwar security arrangements.

The United States, assisted by the British and Canadians, had secretly developed the atomic bomb during the war. The confidential Quebec Agreement of August 1943 specified *inter alia* that none of these three would share information on nuclear matters with a third party absent agreement by all, and that all must concur in the bomb's use. Thus, in the aftermath of the deadlocked London Council of Foreign Ministers meeting in 1946, a tripartite summit took place in Washington DC to discuss how to proceed in dealing with the Russians on nuclear matters. Out of that meeting came the three-party agreement, made public in a communiqué on November 15, 1945, to take the question to the United Nations.

The UN was still an idea, not a reality. It had not come into being officially until October 24, 1945 when a representative of the Soviet Embassy in Washington deposited the Soviet government's instrument of ratification with the Department of State and when Secretary of State James Byrnes then signed the required protocol of deposit for the twenty-nine ratifications needed to bring the organization into

existence. President Truman had signed the American instrument of ratification for the UN on August 8, 1945—two days after Hiroshima, one day before Nagasaki, and before the Japanese surrender.

Expectations in official Washington for the UN were high, arguably driven as much by realism as by idealism. It was acknowledged in the highest circles of the American government that success of the UN depended on postwar cooperation of the major allies, especially Russia. A good-faith effort was launched to see whether this was possible. Initially the Americans thought that the UN in its first session in early 1946 would address purely organizational and procedural matters, deferring substantive questions until the questions of organization and process were resolved. But the compelling imperative of how to deal with the atomic bomb trumped those expectations.

Why go straight to the United Nations with the question of nuclear control? Truman's outgoing Secretary of War, Henry Stimson, who had overseen the wartime Manhattan Project and chaired the Interim Committee created to advise Truman on the bomb's use and on postwar controls, had argued shortly after Nagasaki that the United States should approach the Russians directly on the atomic bomb, securing Russian agreement to the political arrangements before raising the issue in the wider international community. As recently as Truman's message to Congress on atomic energy (October 3, 1945), the Truman administration had not specified what venue would be used to seek political controls on nuclear activities, simply that they were a matter of vital interest. "The difficulties in working out such [international] arrangements," Truman told Congress, "are great. The alternative to overcoming these difficulties, however, may be a desperate arms race which might well end in disaster." 15

Truman had stated publicly as early as August 9, 1945 in his report to the nation on the Postdam Conference that "The atomic bomb is too dangerous to be loose in a lawless world." But how should the issue be approached? Should the United States seek to retain its monopoly on the bomb and use it to force its views on the international community? Should the United States propose to ban the bomb? Were effectively safeguarded political control arrangements possible? The Joint Chiefs of Staff, when asked by Truman before the tripartite Western summit to advise him on how to proceed, cautioned against unilateral nuclear disarmament but also advised that the bomb was not a clear blessing. Others could and would develop the bomb over time, a massive and dangerous nuclear arms race could develop in the absence of political arrangements to the contrary, there was no foreseeable defense against the bomb, and the United States was particularly vulnerable to attack by atomic weapons. The JCS rendered their written judgment on October 23, 1945 that the United States should, as a matter of high urgency, seek political arrangements to control the bomb and further suggested that the matter should be associated with efforts in the United Nations to establish mechanisms for enforcing collective security.¹⁷

The UN Charter had been signed at the San Francisco conference on June 26, 1945, prior to the first secret test of an atomic bomb and with all the delegates (including the American representatives) unaware of the Manhattan Project. The Charter prohibited the use or threat of use of force in international relations (Article 2, Paragraph 4), provided for the peaceful settlement of international disputes (Chapter VI), and elaborated the concept of a mechanism for actions regarding threats or breaches of the peace and acts of aggression (Chapter VII). The General Assembly was empowered to consider "principles governing

disarmament and the regulation of armaments" and to make "recommendations with regard to such principles to the Members or to the Security Council or both (Article 11), while the Security Council was responsible for formulating, with the assistance of the Military Staff Committee (Article 47), "plans to be submitted to the Members of the United Nations for the establishment of a system for the reduction of armaments" (Article 26).¹⁸

It is difficult to establish from the declassified archives and from memoirs and oral histories of the period, the specific reasons why Truman chose to go directly to the United Nations before first obtaining Russian agreement on specifics of a control arrangement as advised by Secretary Stimson. After the US-Anglo-Canadian summit communiqué of November 15, 1945 called for creation of a UN commission to deal with the international control of atomic energy, Secretary of State Byrnes arranged a hasty, meeting of the Council of Foreign Ministers (minus France and China) in Moscow in December to seek Russian agreement to the overall approach. Stalin surprisingly was receptive to the Anglo-American plan, especially after he obtained commitments that the negotiators would report to the Security Council (where the Soviets had a veto), not to the General Assembly. The joint communiqué issued by the Big Three foreign ministers in Moscow on December 27, 1945 expressed the intention of recommending to the General Assembly when it met for the first time in early 1946 that it establish a commission, reporting to the Security Council, to discuss the issues relating to atomic energy. This set the stage for the development of the American proposal for international control of atomic energy.

Before turning to the details of the American proposal (popularly known as the Baruch plan) and to the negotiations, it is useful to review

the question of why the United States wanted to enter into these arms control negotiations. The proximate objective was to seek political arrangements for controlling dangerous nuclear activities while allowing peaceful nuclear activities to proceed. This was associated, however, with a number of other objectives, e.g.: obtaining Soviet cooperation in postwar security arrangements; avoiding a dangerous nuclear arms race; nurturing the gestation of the newly formed collective security system under the United Nations; retaining cooperation among the wartime nuclear allies (the US, the UK, and Canada); and setting the stage for future arms control actions extending more comprehensively to all military forces. It is important when analyzing this era not to use the 20-20 hindsight we have today. Rather, it is more appropriate to recall the going-in assumptions that the Truman administration held in the autumn of 1945.

- No nation can long maintain a monopoly of atomic weapons.
- No nation could maintain or morally defend a monopoly of the peaceful benefits of atomic energy.
- For the foreseeable future, there can be no adequate military defense against atomic weapons.
- All the initial processes in the production of fissionable materials and certain subsequent processes are identical whether their intended use or purpose is peaceful or military.
- The nuclear chain reaction for the release of atomic energy is now based upon uranium and thorium as the only suitable raw materials occurring in nature. Ores containing these materials are only relatively rare. Although rich deposits are not numerous, the lower concentration of the ores have a wide geographical distribution. 19

When Byrnes departed for the first meeting of the UN General Assembly in early January 1946 (to be held at a temporary location in London), he left his deputy, Dean Acheson, with the task of chairing an interagency task force to develop the specifics of the American proposal (recall that this is before the creation in 1947 of the National

Security Council).²⁰ Acheson's colleagues on the interagency task force were former assistant secretary of war John McCloy and the three men who had supervised and directed the wartime development of atomic energy—Vannevar Bush, James B. Conant, and Major General Leslie R. Groves. Acheson convened his task force for the fist time on January 13, 1946. They soon agreed to appoint a board of consultants chaired by David E. Lilienthal, chairman of the Tennessee Valley Authority (later to be nominated by Truman to be the first chairman of the US Atomic Energy Commission).

Perhaps the individual most responsible for developing the specifics of the Acheson-Lilienthal proposal was J. Robert Oppenheimer, wartime scientific director of Los Alamos, a key adviser to the Interim Committee during the final stages of the war and a member of Lilienthal's team of consultants. The Acheson-Lilienthal task force held its first plenary session on March 7, 1946 at Dumbarton Oaks in Washington DC. By March 16, it had agreed upon and delivered a plan to Secretary Byrnes. The essence of the plan was to take dangerous nuclear activities (to be so decided by international consensus) out of national hands and place them under an international agency responsible to the United Nations. The Acheson-Lilienthal study arrived at six criteria (quoted below in their entirety) for the effective control of atomic energy.

- Such a plan must reduce to manageable proportions the problem of enforcement of an international policy against atomic warfare.
- It must be a plan that provides unambiguous and reliable danger signals if a nation takes steps that do or may indicate the beginning of atomic warfare. Those danger signals must flash early enough to leave time adequate to permit other nations—alone or in concert—to take appropriate action.

- The plan must be one that if carried out will provide security; but such that if it fails or the whole international situation collapses, any nation such as the United States will still be in a relatively secure position, compared to any other nation.
- To be genuinely effective for security, the plan must be one that is not wholly negative, suppressive, and police-like. We are not dealing simply with a military or scientific problem but with a problem in statecraft and the ways of the human spirit. Therefore the plan must be one that will tend to develop the beneficial possibilities of atomic energy and encourage the growth of fundamental knowledge, stirring the constructive and imaginative impulses of men rather than merely concentrating on the defensive and negative. It should, in short, be a plan that looks to the promise of man's future well-being as well as to his security.
- The plan must be able to cope with new dangers that may appear in the further development of this relatively new field. In an organizational sense therefore the plan must have flexibility and be readily capable of extension or contraction.
- The plan must involve international action and minimize rivalry between nations in the dangerous aspects of atomic development.²¹

On March 18, 1946, two days after Byrnes received the Acheson-Lilienthal report, President Truman nominated Bernard M. Baruch to serve as US representative to the UN Atomic Energy Commission (UNAEC). Acheson and others criticized this appointment, and there is no denying that Baruch was a self-promoting individual with an enormous ego. Still, Baruch was widely respected in Congress, and there is strong circumstantial evidence that Truman appointed Baruch with an eye to paving the way for Senate advice and consent to ratification if an agreement was achieved. One week after the Baruch nomination, Dean Acheson testified in executive session to the Senate-House Joint Committee on Atomic Energy, discussing his report on control of atomic energy. Elements of the testimony were leaked to the press and appeared in afternoon newspapers that same day. Three days

later, on March 28, the State Department released to the public the full Acheson-Lilienthal report.

On April 5, the Senate overwhelmingly approved Baruch as the American representative to the UNAEC. Baruch had Truman's authorization to consult widely in preparing an American proposal based on the Acheson-Lilienthal report. While accepting all the essential features of the report, Baruch and his associates focused on the largely political question of what should be done if nations agreed to, then cheated on, the plan. It was in this context that the Baruch proposal, presented at the first meeting of the UNAEC on June 14, 1946, called for enforcement by the Security Council with the veto not permitted for alleged violations of the plan. 22

The Baruch Plan envisioned the creation of an international atomic development authority to which would be entrusted all phases of the development and use of atomic energy, commencing with raw material. Some of the responsibilities would be exercised directly by the international agency (e.g., managerial control or ownership of all atomic-energy activities potentially dangerous to world security), while some would be exercised indirectly (e.g., national authorities could conduct all other atomic activities under international license, with the international authority having the authority to control and inspect the activities). The international authority would conduct the research and development needed to place it in the forefront of atomic knowledge—something that would enable it to understand and detect misuse of atomic energy.

Once an adequate system for control of atomic energy was in place, Baruch explained to the UNAEC, including the renunciation of the bomb as a weapon, once the system was operating effectively, and once punishments had been set up for violations of the rules of control

(which were to be stigmatized as international crimes), then the United States would cease manufacture of atomic weapons and dispose of its extant stockpile pursuant to the terms of the treaty.

Five days later, on June 19, the UNAEC met for the second time. Representatives of Canada, the UK, Brazil, China, and Mexico communicated their governments' support of the American proposal (the French, Australians, and Egyptians would add their endorsements later). The Netherlands abstained while the Soviets and Poles objected to the American plan. On behalf of the Soviet government, Andrei Gromyko advanced a counter-proposal calling for a comprehensive ban on nuclear weapons, immediate cessation of manufacture, and destruction of existing stockpiles. A political framework for international control would follow at a later phase.²³

By June 25, 1946, the UNAEC had established a working committee to try to narrow the differences between the American and Soviet proposals. More working subcommittees were created and the UNAEC settled into the rhythm of negotiations. On December 30, 1946, after more than one hundred conferences, the UNAEC voted 10 to 0 (the USSR and Poland abstaining) to approve the proposal advanced by the United States. Since the UNAEC reported to the Security Council and with Moscow's right to veto, this assured that the proposal would go nowhere.

What had begun as an attempt at serious arms control lapsed into a propaganda battle. By early 1947, with the parallel negotiations to try to establish a UN armed force under Article 45 of the Charter also deadlocked, the Truman administration quietly adopted a policy of continuing arms control negotiations for public diplomacy purposes but without expecting substantive results. The arms control negotiations at

the United Nations became part of the political and psychological warfare of the early Cold War.

In 1947 the General Assembly created a Commission for Conventional Armaments (CCA), separate from the UNAEC.²⁴ This new commission began considering proposals for addressing conventional military forces. In order to mark out its territory, the CCA on August 12, 1948 advised the Security Council

that it considers that all armaments and armed forces except atomic weapons and weapons of mass destruction, fall within its jurisdiction" and that weapons of mass destruction should be defined so as to cover "atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above.²⁵

American policy on arms control was registered in several key documents through the remainder of the Truman administration. For instance, NSC 68, "United States Objectives and Programs for National Security," completed in its first version in April 1950, established at least three principles for arms control.

- An effective agreement is not possible until the Soviets are willing to negotiate in good faith—something the United States should not assume until there is concrete evidence of a decisive change in Soviet policy.
- A sound arms control negotiating position is an essential element in the ideological conflict.
- The US should be prepared to live with any agreement accepted by the Soviets and thus must only negotiate proposals that are enforceable and, if violated, will not put the United States at a dangerous disadvantage.²⁶

On October 24, 1950 President Truman proposed in an address to the United Nations General Assembly that the two arms control commissions should be combined. In preparation for the discussion at the next session of the United Nations, the NSC conducted a

comprehensive review of American arms control policy, resulting in NSC 112. NSC 112 is a long policy document. At the heart of its analysis of policy options was the following statement of six general principles for approaching arms control:

- The program [of arms control] must be open for adherence to all states and initially it must include at least those states whose military resources are so substantial that their absence from the program would endanger it....
- With respect to the control and regulation of atomic energy it would be necessary to secure agreement on the U.N. plan [i.e., the Baruch plan], or some no less effective plan.
- The limitation of armed forces and armaments must be carried out under an agreed system of regulation and inspection, and the implementation must be phased in such a manner that will protect the security of the participating states at each stage.
- It would be essential to secure agreement on necessary safeguards which would technically be feasible and practical. Such safeguards would have to provide for the prompt detection of the occurrence of violations, while at the same time causing only the necessary degree of interference with the various aspects of the life of individual nations.
- In the case of armed forces and non-atomic weapons, the inspection and other mechanisms required as safeguards should be conducted under an international authority vested with the necessary status, rights and powers.
- With respect to atomic energy, the control and inspection required as safeguards would be conducted in accordance with the U.N. plan or a plan no less effective.²⁷

After review by his senior advisers, President Truman approved NSC 112 on January 19, 1951. NSC 112 fundamentally established that the United States should remain engaged in arms control, lackluster prospects notwithstanding, and should be prepared to take the initiative and offer arms control proposals that: (1) in the unlikely event they were accepted by the USSR, would not leave the West at a military disadvantage (which meant that safeguards like inspection had to be

built into the agreements), and (2) would rebound to the public diplomacy advantage of the West if the Soviets refused to accept them or failed to negotiate them seriously. In one form or another, this basic approach remained policy throughout the Cold War.

In early 1952 the United Nations agreed to a formal proposal by the United States, Britain, and France—based on the earlier American initiative—to dissolve the two standing arms control bodies—the UN Commission on Atomic Energy and the Commission on Conventional Armaments—and combine them into a single Commission on Disarmament. In preparation for resuming arms control talks in this new body, and to gain the perspective of an outside review of American arms control policy, Secretary of State Dean Acheson in April 1952 appointed a panel of consultants on disarmament consisting of J. Robert Oppenheimer (director of the Institute for Advanced Studies, Princeton); Vannevar Bush (Carnegie Institute of Washington); Allen W. Dulles (Deputy Director of Central Intelligence); John Dickey (president of Dartmouth), and Joseph E. Johnson (Carnegie Endowment). In his initial meeting with the panel on April 28, Acheson argued "that the disarmament work is far more than a propaganda exercise."²⁸ It could, over time, serve as part of the overall settlement envisioned in the policy of containment and deterrence, as political institutions evolved. He did not, however, suggest that arms control should not also serve public diplomacy purposes.

Acheson was a realist on the prospects of any meaningful negotiations in the short run, a position the panel also came to over the next eight months as it studied the situation. During their reviews, the panel met frequently with government officials like Paul Nitze, then director of the policy planning staff at State. The panel also secured the services of McGeorge Bundy to act as their executive secretary.

Assembling at various locations around the country, the panel broadened its study to consider the problem of arms limitations not as an isolated subject to be pursued in a vacuum, but instead in the context of a general study of the political meaning of increasingly lethal modern weapons in a deeply divided world.

The panel (popularly called the Oppenheimer panel, after its chairman) concluded that while there was little chance for serious arms control negotiations in the near term, that "Modern armaments are at once urgently necessary and extraordinarily dangerous, and wise policy must constantly be aware of both the need and the danger. This means that the notion of arms regulation, however little it may have a direct present application, should not be put permanently out of mind." Among its recommendations, the panel suggested that the United States should gradually disengage from arms control negotiations at the United Nations while seeking alternate "ways of communicating with the rulers of the Soviet Union on the range of questions posed by the arms race. Even though serious negotiation hardly seems possible at present, we think that the lesser act of genuine communication could do no harm and might have real value."

The panel delivered a 23-page report in mid-January 1953. Two major events took place during the final phases of the panel's deliberations. On October 31, 1952, in the MIKE test shot at the Eniwetok Atoll, the United States for the first time tested an experimental thermonuclear device, with a yield of 10.4 megatons. More powerful weapons were rapidly becoming a reality and the pace of the arms race appeared to be intensifying. And less than one week later, on November 4, 1952, Dwight D. Eisenhower defeated Adlai Stevenson for the presidency. The Republicans recaptured the White House for the first time since 1933.

Many of Eisenhower's closest advisers were hostile to the thought of arms control. Past negotiations with the Russians had been difficult and non-productive, relations were tense, the Korean War still was underway, and the value of any negotiated agreement was suspect until the Soviet Government fundamentally changed its approach to foreign policy. Eisenhower, the incoming President who was more inclined to search for new arms control initiatives than most of his national security team, made the Oppenheimer report required reading at the senior levels of his new administration. The report also was formally discussed at the NSC. While Eisenhower would not follow the Oppenheimer panel's recommendations to disengage from arms control negotiations at the UN, he did begin searching for other means of pursuing talks with the Russians. But for all intents and purposes, it was clear by the end of the Truman administration that the approach suggested in the Baruch Plan had met a dead end.

NUCLEAR TESTING

Within three months of Eisenhower's inauguration, Stalin was dead and Moscow, in the midst of a leadership transition that largely was concealed from the West, launched a peace offensive aimed at influencing public opinion, dividing the Western alliance, and appealing to so-called non-aligned states. President Eisenhower responded in kind. Oppenheimer, in his panel's report and in subsequent publications, had argued eloquently that the American government must find a way to better communicate the facts of the nuclear age to the American public, especially now that thermonuclear weapons were a reality.³² Eisenhower agreed. These streams converged first into Eisenhower's Chance for Peace speech to the American Society of Newspaper Editors in Washington on April 16,

1953, and then into the Atoms for Peace proposal that the President presented at the UN General Assembly on December 8, 1953.

In his private diary, Eisenhower recorded his conviction two days after going to the United Nations that "If we were successful in getting even the tiniest of starts, it was believed that gradually this kind of talk and negotiation might expand into something broader . . ." The Atoms for Peace proposal did result in institutional changes although not in the way Eisenhower envisioned. It led to negotiations that resulted in the International Atomic Energy Agency (IAEA) treaty of 1957. The Atoms of the International Atomic Energy Agency (IAEA) treaty of 1957.

Meanwhile, the nuclear arms race was accelerating. In late 1949 the Soviets had conducted their first nuclear test and the British their first in October 1952. One week before Eisenhower was elected president, the United States detonated a thermonuclear device in the South Pacific. The Soviets also proceeded quickly to testing thermonuclear devices, with their first success in August 1953. By the early 1950s it appeared that the world had settled into precisely the kind of desperate nuclear arms race that the Americans had sought to avoid in 1946 with presentation of the Baruch plan.

On March 1, 1954 the United States tested a thermonuclear device at Namu Island in the Bikini Atoll in a shot codenamed BRAVO. It was the largest such device the United States ever tested, with a yield in the vicinity of 15 megatons. This was twice what the United States expected which, coupled with unexpected wind conditions, resulted in BRAVO contaminating a wide area. Over two dozen Americans and two hundred and thirty-six natives of the Marshall Islands were exposed to dangerous levels of radiation and a Japanese tuna trawler, the *Fukuryu Maru*, was caught in the radioactive debris. The crew of

twenty-three on the Japanese ship developed severe radiation sickness and one died. Calls were heard worldwide to halt nuclear testing.³⁵

On April 19, 1954 the UN Disarmament Commission, acting on the recommendations of the General Assembly, created a subcommittee consisting of the US, USSR, Britain, France, and Canada and gave it the task of searching for an agreement on a comprehensive and coordinated plan of disarmament. While any such plan inevitably would be utopian in the circumstances of the times, the intense public diplomacy battle between the East and West—and the public diplomacy battle internal to the Western alliance—began to focus on the work of this subcommittee of five. In June 1954, the British and French presented a proposal to the subcommittee. Responding to the Anglo-Franco proposal, the Russians (who for nine years had demanded an unconditional ban on nuclear weapons prior to any other arms control) now seemed to accept the concept of some reduction in conventional armaments prior to prohibition and elimination of nuclear weapons. A new Soviet arm control proposal presented to the General Assembly in September 1954 seized the initiative. The United States again found itself in a reactive position in the public diplomacy wars.

In February 1955 the NSC met to review NSC 112, the US policy on control of armaments carried over from the Truman administration. It was decided to appoint a new high-level official (he would have cabinet rank) who could devote his time fully to a thorough review of American arms control policy and who would devise new proposals for consideration by the NSC and the President. Former Minnesota governor Harold Stassen, already serving in the administration, was named to this post on March 19, 1955, as Special Assistant to the President for Disarmament. He would remain in that job until February 1958.

In April 1955, a new Anglo-French proposal was presented to the Subcommittee of Five, calling for nuclear disarmament to begin when 75% of the conventional arms had been reduced (this was related to the increasingly complex and utopian plans being discussed in the Subcommittee). The United States did not support the proposal. The American position remained that nuclear reductions could begin only after conventional reductions were completed. One month later, the Soviets presented a comprehensive proposal that appeared to accept elements of the Anglo-French proposal, then made their position public in a manifesto released on May 11. Again the United States was on the defensive in public diplomacy.

From July 18 to 23, the heads of government of the US, UK, France, and the USSR met at a summit in Geneva, the first such summit since the closing days of World War II. Recognizing that the United States was losing the public diplomacy battle, Nelson Rockefeller, a special assistant to the president, wrote Eisenhower one week before the meeting, arguing that "A basic US aim at Geneva must be to capture the political and psychological imagination of the world."³⁶ Eisenhower, who had been leery about convening the summit, agreed. At the Geneva summit, Eisenhower unveiled his open skies proposal.³⁷ The Russians rejected it as a cover for espionage, but it played well in the public relations battle. Eisenhower also used his negotiating sessions at Geneva to stress to the Soviet leaders America's peaceful intentions, and in this cause, used dramatic language to characterize the results of a nuclear war. It appears in retrospect that this backfired. Some scholars attribute Khrushchev's decision to use nuclear threats and bluffs over the next several years in part to his impression at Geneva that the Americans were scared of the chance of nuclear conflict.³⁸

For purposes of this paper, it is neither necessary nor useful to continue to review the convoluted arms control politics of the mid-1950s, or the convoluted bureaucratic politics domestically (Stassen would resign in 1958 after Secretary of State Dulles reasserted his control over arms control policy-making). What is important to the current discussion is to recognize the public milieu in which nuclear testing was becoming increasingly controversial (it was an issue during the 1956 presidential campaign) and where the Soviets appeared to be winning the public diplomacy battle by portraying themselves through their proposals to ostensibly be serious and responsible about controlling the armaments race. One such set of proposals concerned nuclear testing.

On May 11, 1957 the Soviets for the first time offered test ban proposals that included international controls. Their suggestions were quite general, calling for an international supervisory commission and for reciprocal monitoring facilities on the territories of the three nuclear powers and in the Pacific Ocean. The Soviets also proposed a nuclear test moratorium while the details of monitoring were worked out. The United States responded in August with a proposal for a two-year moratorium linked to the controlled cutoff of producing nuclear materials for military purposes. Moscow responded with a call for a three-year, uninspected moratorium.³⁹ And so it went.

As the public diplomacy battle intensified, President Eisenhower in April 1958 proposed that Moscow join the West in examining technical requirements for verifying a nuclear test ban. Since the Baruch Plan was first presented, American arms control policy had focused on the importance of safeguards including inspection and other such means to verify compliance with arms control agreements or, in the case of suspected non-compliance, to raise red flags giving the United States

and its allies time to respond effectively. Behind its iron curtain,
Russia had strongly resisted inspections and continued to nurture a
culture of secrecy for even the most mundane matters such as street
maps in major cities or reporting population statistics to UN agencies.

Moscow, with Khrushchev now firmly in control (he had assumed the position of premier in March 1958, complementing his other party positions), responded affirmatively to entering into such discussions and in July 1958, the Conference of Experts to Study the Possibility of Detecting Violations of a Possible Agreement on Suspension of Nuclear Tests convened in Geneva. The Western delegation included three Americans, two British officials, a Frenchman, a Canadian, and assorted technical advisers. The Eastern delegation was augmented by various East European countries to balance the talks. The conference began on July 1 and ended on August 21. A report was issued on August 30, 1958 spelling out the initial proposals for a so-called "Geneva system" for monitoring nuclear tests—a system designed to detect nuclear explosions as low as one kiloton in the atmosphere and five kilotons underground.

With this preparatory work in hand, the United States, Britain, and the Soviet Union began negotiations for a nuclear test ban in the Conference on the Discontinuance of Nuclear Weapons Tests that convened in Geneva on October 31, 1958. The American delegation was led initially by James J. Wadsworth, America's deputy representative to the United Nations. The British delegation was led by David Ormsby-Gore, minister of state for foreign affairs, and the Soviet delegation by Semyon K. Tsarapkin whose disarmament experience dated back to the 1946 negotiations on the Baruch Plan. The Americans and Russians rushed to complete massive test series prior to the start of the talks. The American HARDTACK II tests that began in

Nevada on September 12, 1958, for instance, consisted of thirty-seven shots in less than two months, the final test occurring the day before the talks began. This nuclear test, the TITANIA shot, would be the last American nuclear test until the moratorium was abandoned after the Russians resumed nuclear testing in 1961. CIA Director Allen Dulles briefed the NSC on October 30, 1958 that the Russians had conducted sixteen nuclear tests since September 30, two involving explosions of eight to ten megatons, roughly twice the size of any previous nuclear explosion. 40

What did the United States seek initially in these talks? In early 1955, when the Eisenhower NSC reviewed the basic policy toward control of armaments expressed in NSC 112, Secretary of State John Foster Dulles repeated the argument that "A decent respect for the opinions of mankind required us to try to solve the disarmament problem, as did our need to hold our allies with us."41 Public opinion by the mid-1950s was increasingly concerned with the public health risks posed by atmospheric nuclear testing, and in the public diplomacy contest at the Subcommittee of Five, the Soviets were scoring point after point. Added to this, the argument was made in the NSC that American advantages might be secured by a halt to nuclear testing. In February and March 1955, for instance, Eisenhower was advised by officials such as AEC commissioner Thomas Murray that the United States was far ahead of the Soviets in thermonuclear technology and that a moratorium on testing large thermonuclear weapons "would lengthen the time during which the United States would maintain its advantage over the USS.R."42 Not all agreed with this assessment, but it was in the background of the unfolding debate. Also in the background was a healthy skepticism whether the Soviets would in fact observe a test moratorium without cheating.

On May 26, 1955, shortly after his initial appointment, Stassen had sent to Eisenhower a special staff study entitled "A Progress Report on a Proposed Policy of the United States on the Question of Disarmament." This study, conducted by an interagency task force from State, Defense, the AEC, CIA, and the Foreign Operations Administration, reiterated a set of principles for guiding US arms control policy, including *inter alia*

- The security of the United States should not depend in any essential matter upon the good faith of any other country.
- So long as the communist form of government continues, it should be assumed that the USSR and Communist China will act in bad faith at any time such action is considered by their rulers to be to their advantage.
- It is not possible by any known scientific, or other, means to account for the total previous production of nuclear weapons material, and the margin of error is sufficient to allow for clandestine fabrication or secretion of a quantity of thermonuclear weapons of devastating power.
- It is not possible by any known scientific or other means to be absolutely certain of the control of all future production of nuclear weapons material....
- The United States should not advance or join in any proposals which it would not be willing to respect if agreed...[and the] United States should never cease searching for a sound agreement and should be willing at an appropriate time and place to enter serious discussions in pursuit of such an agreement.
- The substantial majority of the people of the United States and of the Congress of both political parties must be convinced of the desirability of any arms agreement entered into by the United States....⁴³

Most members of Eisenhower's administration could assent to most of these principles, but there was considerable disagreement regarding whether the time was right to enter into serious negotiations and, if so, what those negotiations should address. As the public diplomacy contest on nuclear testing unfolded, Eisenhower said at a

press conference on June 19, 1957 that he "would be perfectly delighted to make some satisfactory arrangements for a temporary suspension of tests while we could determine whether we couldn't make some agreements that would allow it to be a permanent agreement." At an NSC meeting on January 6, 1958 Stassen cited this when he made the case that a nuclear test regime, with some eight to twelve monitoring inspections stations in the Soviet Union and a like number in the United States, could adequately monitor compliance with a test ban in the opinion of American scientists like I. I. Rabi and, if accepted by the Russians, would begin to open up the Soviet Union, perhaps for other, more comprehensive arms control regimes. Lewis L. Strauss, chairman of the AEC, countered that Edward Teller and Ernest Lawrence believed that many more inspection stations would be needed (Teller had made this point in a recent article in *Foreign Affairs*). Affairs).

The debate in the American technical community about the adequacy of monitoring systems for a test ban continues through today. Eisenhower took note of it in preparing for the test talks. Before committing to a moratorium and to the talks, Eisenhower also insisted that the Atomic Energy Act of 1954 must be amended so that the United States could satisfy a long-standing British request to resume the sharing of nuclear weapons information that was addressed in the Quebec Agreement of 1943 but had been terminated by the initial Atomic Energy Act of 1946 and had not been reinstated in the 1954 amendments. This was accomplished in July 1958 with the passage of P.L. 85-479, and in the agreement that Eisenhower sent Congress on exchange of classified atomic information for mutual defense purposes. With the technical issues of verification left unresolved and with the

alliance concern that the British not be penalized by a testing moratorium satisfied, Eisenhower was ready to enter into the test talks.

The talks in Geneva continued through the end of the Eisenhower administration, with verification and inspection issues forming the crux of disagreement. By the time Eisenhower left office, France had become a nuclear power, having tested its first device in the Sahara in February 1960 and announcing shortly thereafter that it was willing to abandon its nuclear weapons program only if the other three nuclear powers destroyed their nuclear weapons. American intelligence also pointed to the prospect that sometime in the next few years, China would become a nuclear power.

The Eisenhower era ended with the dramatic collapse of the Paris summit in 1960—a move Khrushchev orchestrated after the American pilot Francis Gary Powers and his U-2 reconnaissance aircraft were shot down by a Soviet missile over Sverdlovsk. The breakdown of the Paris summit was followed by a sharp decline in East-West relations across a broad range of crises including Berlin, Cuba, and the Congo. Glen Seaborg summarizes the circumstances surrounding the nuclear testing talks by the end of the Eisenhower era:

In this deteriorating atmosphere, the delegates at Geneva slogged on. Having held over two hundred sessions between the start of the conference and the collapse of the summit meeting, they held sixty-eight more between May 27, when the conference reconvened, and December 5, its last meeting date in 1960. Little of significance was accomplished. Aside from some minor tidying up of administrative provisions, the conference merely marked time. Both sides seemed reluctant to take new initiatives or to risk major confrontations in the closing days of the Eisenhower administration. On December 5, 1960, the Geneva Conference adjourned to give the incoming Kennedy administration an opportunity to examine its position. ⁴⁷

For purposes of this paper, it is unnecessary to continue to review in detail the twists and turns of the nuclear testing talks over the next four and a half decades, but merely to highlight the main points. The tripartite test talks resumed in 1961, only to fall apart later in the year in a hostile environment where first Russia, then the United States and Britain, resumed testing. Following the Cuban missile crisis of 1962, all sides were receptive to serious negotiations and a new round of three-power meetings began in July 1963. Within ten days, a short treaty banning nuclear weapon tests in the atmosphere, in outer space, and under water—more popularly, the Limited Test Ban Treaty, or LTBT—was initialed. On September 24, 1963, after extensive hearings including almost three weeks of floor debate, the Senate consented to ratification by a vote of 80 to 19. The LTBT entered into force on October 10, 1963 when the three original signatories deposited their instruments of ratification.

Subsequently, a Threshold Test Ban Treaty (TTBT) limiting underground nuclear explosions to 150 kilotons or less, and a Peaceful Nuclear Explosions Treaty (PNET) with parallel provisions were signed in July 1974 and in April 1976, respectively. The two agreements were submitted to the Senate for advice and consent on July 29, 1976, but ratification was not forthcoming until after detailed verification protocols had been negotiated in the late 1980s and signed in 1990. Pending entry into force, the signatories agreed to act consistent with the 150-kiloton threshold. The TTBT and PNET, along with the 1990 verification protocols, were approved by the Senate on June 28, 1990 by a vote of 98 to 0. The treaties entered into force on December 11, 1990. In 1992 Russia succeeded the former Soviet Union as the US treaty partner for these two treaties.

Although the initial American position in 1958 was to achieve a Comprehensive Test Ban Treaty (CTBT), the more modest predecessors were accepted politically as steps toward an eventual CTBT. As will be discussed in the next section, when the Nuclear Non-Proliferation Treaty (NPT) was negotiated in the late 1960s, the objective of an eventual complete and universal ban on nuclear testing was explicit in the NPT bargain. During the Carter administration, an attempt to begin serious negotiations on a CTBT gradually withered as US-Soviet relations worsened, and the Reagan administration concentrated its efforts on the verification protocols for the TTBT and the PNET. In 1990, Soviet President Mikhail Gorbachev announced a Soviet nuclear test moratorium, and in 1992 French President François Mitterand unexpectedly announced a French moratorium. For several years, efforts in the US Congress to impose test limits had failed, but in the fall of 1992, Congress passed the Hatfield-Mitchell-Exon legislation calling on the United States to pursue a CTBT and providing for the immediate commencement of a nine-month US test moratorium. The last American nuclear test to date, the DIVIDER shot, took place in Nevada on September 23, 1992.

After an internal policy review, the Clinton administration joined with Russia in calling for CTBT talks which began in the Conference on Disarmament early in 1994. In August 1995 President Clinton announced the intent to seek a "true zero-yield" test ban and also announced a package of safeguards upon which adherence to a zero-yield CTBT would be conditioned. Although India refused to support a CTBT, China indicated in 1996 that it could join a CTBT and, on September 24, 1996, the treaty was opened for signature. The United States was the first to sign. However, in October 1999, the United States Senate brought the issue to a head when, in vote of 48 in support

and 51 against (with one senator voting "present"), it fell far short of the two-thirds majority needed to advise and consent to ratification of the CTBT. Two major concerns were voiced by opponents of the treaty: (1) the United States could not maintain a safe, secure, and reliable nuclear stockpile over time absent nuclear testing, and (2) the provisions for monitoring the CTBT could not guarantee that all cheating could be detected. Those concerns remain on the table today.⁵⁰ The administration of George W. Bush has taken the position that, while it is continuing a unilateral moratorium on American nuclear testing, it has no intent to seek to revive the CTBT.

Later in the paper, we will return to the lessons from the nuclear testing talks. First, however, it is appropriate to consider the third area of negotiations, nuclear non-proliferation.

THE NPT

When Kennedy took office in 1961, one of his first actions was to appoint John J. McCloy to be his adviser on disarmament and arms control. McCloy was a respected Republican member of what had become a group of American elite opinion-makers on foreign and security policy, and had been involved with arms control matters since he had served during World War II as Stimson's assistant in the War Department. Kennedy asked McCloy to develop recommendations on American arms control plans and to help stand up a new agency to focus arms control activities in the government. McCloy would preside over creation of the Arms Control and Disarmament Agency (ACDA) before returning to private life late in 1961.⁵¹

On March 8, 1961 McCloy transmitted to President Kennedy a copy of a report addressing verification of a ban on nuclear testing. In the transmittal memorandum, McCloy summarized what became for Kennedy a primary purpose for pursuing a nuclear test ban, namely, its

role in a broader policy to prevent the spread of nuclear weapons. McCloy wrote *inter alia*

A second reason for supporting a test ban agreement is that it could be helpful in preventing the spread of nuclear weapons capabilities among other countries. By establishing an international legal order, to which nations would be asked and expected to join, it will tend to restrain the present non-nuclear powers from obtaining nuclear capabilities. The test ban agreement is certainly not sufficient in itself to prevent this spreading of nuclear capabilities. It will have to be followed by the negotiation of other measures. If the present nuclear powers are engaged in nuclear weapons testing, the possibility of effective agreements restricting the spread of nuclear weapons capabilities will have been severely limited.⁵²

There is considerable evidence from the declassified Kennedy archives that what sustained President Kennedy in his search for a nuclear test ban in the face of substantial congressional opposition was the fear that China was well along toward acquiring a nuclear weapon, and that a nuclear test ban, coupled with a united US-Russian opposition to a Chinese nuclear weapons program, might create the political conditions that could halt or at least inhibit China's progress toward acquiring nuclear weapons.⁵³

In 1958 Irish foreign minister Frank Aiken had first proposed at the UN General Assembly that the three nuclear powers—the US, the UK, and the USSR—agree not to supply other countries with nuclear weapons while the nuclear testing talks were underway. This proposal, soon known as the Irish Resolution, was supported initially by Moscow but opposed by Washington because of implications for NATO. The Irish Resolution was modified in 1960 and 1961 to take account of the NATO sensitivities and was adopted unanimously in the UN General Assembly in 1961, calling on all states to conclude a non-proliferation agreement. However, East-West differences, especially the questions

regarding nuclear sharing arrangements in NATO, blocked serious negotiations at the time.

With American concern over the PRC becoming a nuclear power mounting, Secretary of State Dean Rusk, with White House authorization, began quiet bilateral discussions with Andrei Gromyko in Geneva at the opening session of the new Eighteen Nation-Disarmament Committee (ENDC)—a body that met for the first time in March 1962 in Geneva. Five months later Rusk approached Soviet Ambassador Anatoly Dobrynin in Washington with a request that he relay to foreign minister Gromyko a personal message, following up on conversations that the two foreign ministers had begun in Geneva earlier in the year. The thrust of Rusk's communication was to propose that the American and Russians begin seriously negotiating multilateral arrangements for preventing the further spread of nuclear weapons. Rusk indicated some leeway for the Americans to relax their position on nuclear sharing in NATO (a matter of Russian concern primarily because of Germany) in exchange for Russian assistance relative to China's acquiring the bomb (America's concern), and that they both address the other programs on the horizon, especially that of Israel. Rusk expressed the hope that Washington and Moscow could reach a common position on the problem of "non-diffusion" (the terminology then used for non-proliferation) that could be taken to the UN General Assembly.⁵⁴

This demarche, coming shortly before the Cuban missile crisis, led nowhere. As discussed earlier in this paper, the Cuban missile crisis was a sobering experience for both sides and created a new opportunity to stabilize the nuclear relationships. Kennedy's first choice to go to Moscow to negotiate the nuclear testing treaty was John McCloy, but

when McCloy declined for personal reasons, Kennedy turned to Averell Harriman.

In the lead-up to Harriman's mission to Moscow in July 1963, the NSC reviewed American non-proliferation policy. NIE 4-63, dated June 28, 1963, reported the intelligence community's judgment that eight countries in addition to France had the physical and financial resources to develop an operational nuclear capability (weapons and delivery means) over the next decade: China, India, Japan, Sweden, Canada, Italy, West Germany, and Israel. "However," the NIE continued, "we believe that only Communist China has actually started a weapons program. The Chinese may be able to detonate a first nuclear device by early 1964, but a more likely date is late 1964 or beyond." 55

The NSC was scheduled to meet on July 9, 1963, to discuss the draft instructions for the Harriman mission. Deputy National Security Adviser Carl Kaysen sent these draft instructions to President Kennedy prior to the meeting with a short forwarding memorandum:

Attached is the draft instruction for Governor Harriman. It represents the work of Harriman, Tyler, Fisher and myself. Bob McNamara has also seen it. It covers the main topics broadly, but does not go into detail. Neither China nor MLF is covered explicitly in this instruction. It seemed better to leave this matter for your [private Oval Office] talk with Harriman tomorrow morning.⁵⁶ (emphasis added)

To appreciate the sensitivity of the subject, some background is in order. After the shock of Sputnik in 1957 and the growing perception in the Western alliance that Soviet nuclear forces were outpacing those of the United States, the Eisenhower administration sought to reassure America's allies that the American nuclear umbrella extended to NATO as a deterrent was strong. At Eisenhower's behest, the North Atlantic Council convened in Paris in December 1957 at the heads-of-

government level. Eisenhower attended and presented several new initiatives, one of which was to create a NATO stockpile of American nuclear weapons which would remain under American control in peacetime but could be released to the Allies in wartime. This began a spirited dialogue in the alliance.⁵⁷

Out of this dynamic emerged the concept of a Multilateral Nuclear Force (MLF), devised by Robert Bowie at the request of Christian Herter, embraced by Eisenhower, and presented to NATO at the December 1960 meeting of the NATO Council. The MLF took on a life of its own, largely because it was a mechanism for approaching the delicate question of West German access to nuclear weapons. It also became for many American officials dealing with European affairs an institution on the road to European political unification, and for some American nuclear strategists, a mechanism for walking back the independent British and French nuclear weapons programs into a European nuclear force.

Not surprisingly, Moscow violently opposed any nuclear sharing arrangements with West Germany, whatever the mechanism, and by the start of the Kennedy administration this had become the greatest stumbling block to Washington and Moscow agreeing on a common approach to a negotiated non-proliferation treaty. Kennedy inherited the MLF proposal in 1961 and, by 1962, fully recognized the sensitive role it played in alliance politics where Britain was privately opposed to the proposal but where West Germany had embraced it strongly as another milestone toward restoring German sovereignty. NIE 23-62, published in July 1962, registered a consensus that had been building during Kennedy's first eighteen months in office.

The West Germans recognized that the political, economic, and even technical obstacles to their acquisition of nuclear weapons under national control will remain insuperable for the

next few years. Nor do we believe that they have decided that even eventually they will wish to have an independent national nuclear force. However, with the French move to develop a national nuclear force and the possibility that other nations of no greater stature than West Germany may do so, the Germans are very much concerned that West Germany not fall into a second-class position.... They are disposed therefore to support whatever arrangements can be made for a multilateral NATO nuclear force. They probably hope that the British and French can be persuaded to subordinate their nuclear forces to such an alliance system, or if necessary to a European system, in which the Germans would also have weapons and an equal share of control. Failing this, it seems likely that the West Germans will eventually decide, perhaps reluctantly, that they must seek to acquire nuclear capabilities of their own 59.

Kennedy by July 1963 thus was dealing with a delicate diplomatic equation that involved issues of alliance politics, proliferation, arms control, and the broader question of what to do about an increasingly dangerous China. As a result, on the eve of Harriman's mission to Moscow to negotiate a nuclear testing treaty, Kennedy was faced with a major decision. Should Harriman be authorized to negotiate directly with Khrushchev, offering to give up American support for the MLF (and perhaps for any other nuclear sharing arrangement with West Germany), in return for a joint US-Russian position opposing China's acquiring nuclear weapons? This was the underlying but unstated policy question facing the President.

Following discussion at the NSC on July 9, 1963, a revised set of instructions was issued to Harriman the next day stating *inter alia*

You should continue to emphasize the relation between the nuclear test ban and our desire to control the diffusion of nuclear weapons. In pursuing this subject, you should be guided by the talks on non-dissemination of nuclear weapons between Secretary Rusk and Ambassador Dobrynin. You may indicated that the United States will endeavor to secure adherence to or observation of any non-dissemination agreement by those powers associated with it, if the Soviet Union is willing to undertake a parallel responsibility for those

powers associated with it. In this connection, you should maintain our position that the MLF proposals under discussion are not inconsistent with the goal of a non-dissemination agreement. ⁶⁰ (emphasis added)

Notwithstanding the categorical tone of the written instructions cited above to support the MLF, there is considerable evidence that the small-group, private meeting between President Kennedy and Harriman later in the day on July 10, of which there is no written record, took up the issues of China and the MLF verbally and resulted in Harriman receiving additional instructions that he could soften if not abandon American support for the MLF (and hence for the German position) if Khrushchev was forward-leaning in the upcoming Moscow talks on willingness to help stop the Chinese nuclear weapons program. Once in Moscow, Harriman raised the China question with Khrushchev. Khrushchev, apparently quite sensitive to his own alliance and domestic politics at the time, refused to enter into a discussion on China, and the LTBT thus was signed in 1963 with the question of a further non-proliferation treaty unresolved.

The LTBT was signed in Moscow on August 5, 1963, by the US, the UK, and the USSR, with article III specifying that the treaty was open to all states for signature. One week earlier, on July 31, the PRC had rejected participation in the treaty in no uncertain terms, calling it a "sell out" by the Soviet authorities that would willingly allow the United States to gain nuclear superiority, reiterating the right of "peaceloving" countries to increase their defense capabilities, charging US-Soviet collusion against China, and proposing a world summit meeting at which complete nuclear disarmament would be discussed. The Chinese statement called for an Asian nuclear-free zone that for the first time explicitly would include the USSR as well as the United

States. 63 Following signature of the LTBT, Chinese public diplomacy continued in this vein.

China thus remained on the table for American policymakers as the nation went through the trauma of the Kennedy assassination in November 1963 and the transition to the new administration of Lyndon B. Johnson.

Some scholars have argued that the US was seriously considering options in late 1963 and 1964 to militarily disrupt the Chinese nuclear program—an early form of proactive, military counter-proliferation.⁶⁴ A more accurate description of the secret interagency deliberations at that time appears to point in the direction of military options being considered among a full range of alternatives but being eliminated fairly early as a serious choice, in favor of diplomatic approaches. 65 On April 17, 1964, W. W. Rostow forwarded to the President a short summary of a major planning exercise conducted over the past year on an interdepartmental basis, led by Robert Johnson of the State Department policy planning council (then the name for the policy planning staff). The first question identified in the summary was: "Should the US engage in pre-emptive military action against identified ChiCom nuclear facilities?" The conclusion was that military action "would be undesirable except as part of military action against the mainland in response to major ChiCom aggression." Instead, the recommendation was to adopt a broad-based diplomatic strategy including assuring Asian states that they would not be threatened by China's acquiring the bomb.⁶⁶

The United States continued to monitor nuclear testing preparations at Lop Nur in the Xinjiang desert in remote northwest China. On June 16, 1964, and again on July 23, the committee of principals discussed the impending Chinese test and its implications for

further proliferation. India now began to receive attention that was largely absent a year earlier, as evidenced in a draft position paper prepared by ACDA for Secretary Rusk, summarizing the principals' main points.

The detonation of a Chinese Communist nuclear device will put great pressure on India to make a national decision to develop nuclear weapons of its own. The development of nuclear weapons by India would be a serious—perhaps irreparable—break in the political and psychological barrier which now restrains proliferation. The US should make every effort to prevent such a development, including the consideration of the possibility of appropriate security arrangements. ⁶⁸

In fact, at the meeting of the principals on June 16, Rusk had been even more pointed in his comments. The US government did not have a settled position, Rusk argued, as to whether to oppose other nations from acquiring nuclear weapons once China went nuclear, which led to the question of whether anyone had seriously looked at the possibility of giving India nuclear weapons once China had them. William Foster, head of ACDA, responded that he knew of no such detailed look but believed it would be preferable to provide India with defenses or to extend a deterrent to nuclear attack to the Indians, rather than transferring nuclear weapons into Indian hands.⁶⁹ The discussion ended inconclusively.

On October 15, 1964 Washington learned that Khrushchev had been removed from power. Washington had no warning of this leadership change. One day later, October 16, the Chinese exploded a nuclear device at Lop Nur. The Chinese test had been anticipated although American officials were uncertain when it would occur. One month earlier, on September 29, Secretary Rusk had issued a public statement calling attention to the fact that the US believed that the Chinese would conduct a nuclear test in the near term, deploring

nuclear testing that endangered public health (the first Chinese test was expected to be atmospheric), and declaring that the United States had taken the acquisition of nuclear weapons by China "into full account in determining our military posture and our own nuclear weapons program."

Two days after the Chinese test, President Johnson went on radio and television to address the nation and the world from the White House. He discussed two things: the change of leadership in Russia and the Chinese test. The President cautioned that China could not be considered to be simply another nuclear power. "Whatever their differences," he stated, the other four nuclear weapons powers "are sober and serious states, with long experience as major powers in the modern world." He contrasted this with the Chinese, adding: "The nations that do not seek national nuclear weapons can be sure that if they need our strong support against some threat of nuclear blackmail, then they will have it."

The Chinese test coupled with change in the Soviet leadership catalyzed action within the US government. An interagency group chaired by Llewellyn "Tommy" Thompson already was examining how to deal with Indian ambitions once China went nuclear, but it had been difficult to achieve within the interagency a concentrated approach to non-proliferation, in no small part due to the MLF and the different factions that viewed it as either a dispensable barrier to a non-proliferation agreement (e.g., ACDA) or as a necessary step to retain German allegiance and to continue to work toward European integration (e.g., many Europeanists in State). President Johnson now took the question out of the interagency process. He asked his national security adviser, McGeorge Bundy, to arrange for a higher-level, harder look at the nuclear proliferation problem, specifically mentioning

former defense secretary Roswell Gilpatric as a preferred chairman for a group of outside consultants. Gilpatric agreed to lead the group and was joined by nine other senior figures outside of government.⁷² Spurgeon Keeny, a member of McGeorge Bundy's NSC staff, was designated staff director and the commission's instructions were conveyed in National Security Action Memorandum (NSAM) 320, dated November 25, 1964. The committee was directed to examine the means to prevent the spread of nuclear weapons "in its broadest ramifications" and to report to the President by the end of January 1965. ⁷³

The Gilpatric commission held three plenary meetings on December 1, December 13-14, and (in 1965) on January 7-8. While the commission was pursuing its work, Secretary Rusk met in early December with the Russian foreign minister, Andrei Gromyko, in New York at the 19th Session of the UN General Assembly. Gromyko raised the subject of non-proliferation, noting that the Americans knew the Russian position on the matter and stating that the new Soviet government attached great importance to the question.⁷⁴ Rusk responded in general terms but was non-committal on specifics since the American position still was under review. Four days later, on December 9, foreign minister Gromyko came to Washington to meet with the President. An extended discussion of non-proliferation ensued with each side expressing their concerns: Moscow's raising issues regarding Germany and nuclear weapons, the US determined to do whatever it could to prevent other countries from following the Chinese example. Neither side had fresh proposals to make, and the meeting again ended inconclusively.⁷⁵

On January 21, 1965, the Gilpatric commission met with President Johnson to deliver their report. The commission, starting from a

diversity of views, had agreed unanimously in the end that it was in the overriding national interest of the United States to seek to prevent the further spread of nuclear weapons to other nations. The commission recommended policy efforts of three kinds:

- negotiation of formal multilateral agreements;
- the application of influence on individual nations considering nuclear weapons acquisition, by ourselves and in conjunction with others;
 - example by our own policies and actions. ⁷⁶

Perhaps most importantly for what later transpired, the Gilpatric commission concluded that the German problem could be finessed and that compromises could and should be made on the MLF. With the President committing himself to achieving a multilateral non-proliferation treaty in the ongoing negotiations at the Eighteen-Nation Disarmament Committee (ENDC) in Geneva, and with his willingness to compromise on the matter most clearly at the heart of the Russian concern—Germany—an agreement was possible in the opinion of Roswell Gilpatric and his fellow commissioners. The ramifications for Germany would be painful but manageable was their conclusion—a conclusion joined in by two commission members who were recognized by the West Germans as good friends, Alfred Gruenther (a former Supreme Allied Commander in Europe) and John McCloy (the former high commissioner for Germany).

President Johnson took the commission's advice under consideration. He was absorbed in early 1965 with the escalating crisis in Vietnam. He also was aware that German national elections were scheduled for September 1965, and he continued to review options for managing the problem of MLF as it impacted on German concerns. A new NIE published in April 1965 continued to stress that unless managed correctly, failure to achieve adequate nuclear sharing

arrangements with Germany "may lead them eventually to consider alternative nuclear policies." ⁷⁷⁷

Prime Minister Harold Wilson and Chancellor Ludwig Erhard met separately with Johnson as the year progressed. The British now were giving priority to a non-proliferation treaty. In a briefing paper prepared by the State Department for the Erhard visit in June, Johnson was cautioned

A number of Germans continue to be concerned that the US has slid away from the MLF. In discussions with the British in January and February of this year, the Germans emphasized the importance they attach to the MLF concept but made clear that they do now wish the issue to be brought to a head before the September election because of its possible repercussions in terms of a split within the CDU.

During Erhhard's visit to Washington, the president and the chancellor discussed the proposal that McNamara recently had made to establish a nuclear planning group of key NATO defense ministers including the Germans. This would replace a more informal group that he had created in May 1965. The MLF issue was left unresolved. After the German elections in September, where Erhard again won, the German government continued to press for some variant of the MLF.

It is a testimony to Lyndon Johnson's personal skills as a political leader that scholars still cannot pin down precisely when he made the decision to abandon the MLF concept. George Bunn, general counsel of ACDA at the time, who would become one of the chief American NPT negotiators, believes that the turning point came in the summer of 1966 when the Senate adopted a resolution introduced by Senator John Pastore, chair of the powerful Joint Committee on Atomic Energy, urging the President to conclude a non-proliferation treaty.

Senate hearings on the Pastore amendment made it clear that the joint committee remained opposed to transferring nuclear weapons.

There still was no consensus in NATO on a collective approach to nuclear forces. The Soviets were hinting that if the Americans would abandon the MLF, they would soften their opposition to some form of bilateral arrangement under NATO auspices for American nuclear sharing and consultation with the Germans. It was in this context that Johnson appears to have decided to let the MLF concept die from inattention, to pursue dual-key arrangements and the nuclear planning group as the sharing arrangement for Germany, and to put the full force and prestige of his presidency behind achieving a non-proliferation agreement. "The first recorded indication I found of Johnson's changed view," Bunn writes, "was his effusive June 13, 1966 letter congratulating Pastore on the passage of his resolution."

On August 17, 1965 the United States submitted a draft nonproliferation treaty to the ENDC. The Soviets tabled a competing draft on September 24, arguing that the greatest danger to proliferation was posed by the MLF or any such concept (to include the British variant, the Atlantic nuclear force, ANF). By the second half of 1966, however, as the Americans let the MLF concept slip away, the US and Soviet positions began to converge, and on August 27, 1967, the Americans and Russians submitted separate but identical drafts, representing closure on Article I (the non-transfer clause). A joint draft incorporating the views of other parties was ready by March 1968 and with further minor adjustments, was submitted to the First Committee of the General Assembly on May 31, 1968. On June 12, the General Assembly approved a resolution endorsing the text and recommended that it be opened for signature. France abstained, stating that it would not sign the treaty, but promised that it would conform its behavior in the future as if it were a member of the treaty regime.⁸¹

The NPT was signed in Washington, London, and Moscow on July 1, 1968. However the Soviet invasion of Czechoslovakia shortly thereafter delayed entry into force of the treaty until March 5, 1970, as well as commencement of the bilateral US-Russian strategic arms talks, to be discussed in the next section. The non-proliferation treaty (due to a clause inserted by Italy at the urging of West Germany) was of twenty-five years duration, with a deliberate decision needed at the twenty-fifth anniversary whether is would remain in force indefinitely, would be extended for an additional fixed period or periods, or (by implication) would be allowed to expire.

Review conferences convened every five years. In the preamble to the NPT, language had been inserted to recall the determination of the parties to the 1963 LTBT to continue negotiations to achieve a "discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end." The 1980 and 1990 NPT review conference failed because of lack of progress toward that end. Lead that been an issue at every other review conference. The 25th anniversary of the NPT was in 1995, and at the review conference held that year, it was continued indefinitely. Subsequent review conferences have been held in 2000 and in 2005. The 2005 review, attended by delegates from 153 nations, ended with no decisions or recommendations for further progress in nuclear nonproliferation or disarmament.

Since 1970, a broad regime addressing nuclear-nonproliferation has grown up, anchored by the NPT and the IAEA safeguards agreements and consequent inspections. The NPT regime was severely stressed in the early 1990s with the revelations subsequent to the First Gulf War of the covert Iraqi nuclear program, again in 1998 when India and Pakistan openly tested nuclear weapons, and today in the aftermath

of revelation of the A.Q. Khan black-market network and with the challenges posed by North Korea and Iran. The NPT regime also has increased in important to the United States because of the contemporary threat posed by global terrorists seeking nuclear weapons. Testifying to the subcommittee on international terrorism and non-proliferation of the House committee on international relations, assistant secretary of state Stephen Rademaker reaffirmed the importance of the NPT for the United States.

The President's National Strategy to Combat Weapons of Mass Destruction lays out a comprehensive approach for countering the threat that the world's most destructive weapons could fall into the hands of the world's most dangerous regimes or terrorists. In doing so, the National Strategy recognizes the valuable contribution of multilateral arms control and nonproliferation regimes to international peace and security. The Nuclear Non-Proliferation Treaty (NPT) serves as a critical legal and normative barrier to nuclear proliferation. 83

STRATEGIC AND THEATER NUCLEAR ARMS

The strategic arms talks between the United States and the Soviet Union that began in 1969 were unprecedented. They went to the heart of each nation's defense and military strategy, addressing the military forces that arguably were most important to each state at the time. In the 1950s, leading Western defense intellectuals were highly skeptical that there ever would be meaningful nuclear arms control. Writing in 1957, Raymond Aron expressed a view common to many:

The impossibility of disarmament springs first of all from the irreversible facts created by developments during the ten years since Hiroshima. In 1946 the question was how to avoid the clandestine manufacture of atom bombs. Today, each camp possesses a stockpile of bombs sufficient to devastate the other's territory: the question now is, or ought to be, how to guarantee the destruction of the existing stockpiles. And to this question there is at present no answer. Neither of the two great powers will destroy its own for fear of putting itself at

the mercy of its rival should the latter break its pledge. In the foreseeable future, two states at least will possess the means to lay waste to every city on the globe.⁸⁴

What made it possible for strategic arms control negotiations to begin in 1969, to result by 1972 in an interim agreement on offensive forces and a permanent treaty on strategic defenses, and then to transition to a negotiating process that continued through and beyond the Cold War? At least four factors appear to be at play from the American perspective: the chance that the Russians finally were serious negotiating partners; a new attitude toward verification based in part on the technical breakthroughs associated with space-based intelligence systems; a new theory of how to address the nuclear balance, centered around the concepts of crisis and arms race stability; and the acceptance of a doctrine of military sufficiency in the United States (driven in part by the realities of domestic politics and the backlash to the war in Vietnam). Before discussing the negotiations, it is worth briefly reviewing each of these factors.

As has already been discussed, much if not most of the arms control negotiations of the 1950s were largely conducted for purposes of political warfare and public diplomacy: to convey the message that one was serious about arms control while not expecting any substantive results. The first national intelligence estimate on Soviet attitudes toward arms control, SNIE 11-6-58, was produced in June 1958, written by Raymond Garthoff who, since December 1957, had been working in the office of national estimates, then chaired by Sherman Kent. Garthoff argued that the Soviets had incentives for arms control over and above propaganda, a judgment he recalls in his memoirs "which provoked some military opposition and a strong Air Force Intelligence dissent from the judgment that the Soviet Union

would consider arms control and reduction agreements that could curb its pursuit of military superiority."⁸⁶

As late as November 1969, when strategic arms talks finally began, the head of the American delegation to the talks, then ACDA director Gerard Smith, reports in his memoirs that his written guidance from President Nixon specified that his initial purpose was "to determine whether it is feasible to make arrangements with the Soviet Government that will contribute to the preservation and if possible, the improvement of this country's security." Henry Kissinger, Nixon's new national security adviser, offers a slightly different slant.

The first official session of SALT was to begin in Helsinki on November 17, 1969. As we examined the various building blocks and the absence of any governmental consensus it seemed to me wisest to treat the session as exploratory. We did not want to give the Soviet Union an opportunity to score a propaganda coup, or risk failure by putting forward clearly unacceptable proposals.⁸⁸

The business-like way the Soviets approached the early strategic arms talks, the composure and conduct of the chief Soviet negotiator, Vladirmir S. Semyonov (at the time a senior deputy foreign minister), and the stature of the Soviet officials assigned to the negotiations such as Colonel General Nikolai Ogarkov for the first three sessions (Ogarkov would go on to become chief of staff of the Soviet armed forces), were some of the evidence Smith drew upon in reporting back to Nixon his judgment that the Russians were serious about the talks. Interestingly, Gerard Smith recalls that the Russians also were unsure initially whether the Americans were serious. He writes

Before the talks started Soviet Ambassador Dobrynin and I had agreed that they would be private and there would be no press back-grounding. The commitment to privacy was respected throughout the talks, with the exception of some notorious leaks out of Washington. This unprecedented ability of Americans to keep their mouths shut did much to convince the

Soviets that SALT was a serious negotiation. Semenov said so several times.⁸⁹

The second major factor in the American decision to seriously pursue strategic arms control involved the issue of verification, an important element in American policy since the initial presentation of the Baruch Plan. As the nuclear arms race had unfolded in the early 1950s, President Eisenhower grappled with the problem of the threat of surprise nuclear attack by the Soviet Union. In March 1954 Eisenhower had asked the Science Advisory Committee of the Office of Defense Mobilization to form a panel to study US technological capability to reduce the threat of surprise attack. The result was the formation of the Technological Capabilities Panel led by James R. Killian, Jr., president of MIT. The Killian panel interpreted its mandate broadly and reported back to the President in February 1955 with a broad set of recommendations addressing such things as pursuing an intercontinental ballistic missile (ICBM) as a matter of the highest national priority and arming American air defense forces with nucleararmed interceptor missiles as their primary armament. 90

More to the point on intelligence for preventing surprise attack, Eisenhower's interaction with Killian during the panel's deliberations had convinced the President to approve a crash, highly secret program for developing a strategic reconnaissance capability against the USSR, the initial outgrowth of which was the U-2 program begun in November 1954, and—subsequent to the Soviet launch of its first ICBM in 1957—the CORONA photoreconnaissance satellite program begun in February 1958. Eisenhower already had proposed the openskies initiative at the 1955 Geneva summit (as discussed earlier), and in April 1958, proposed an international meeting of technical experts to explore measures that might safeguard against surprise attack. The

resulting ten-nation surprise attack conference that met in Geneva from November 1958 to January 1959 ended with no agreement. 93

An American U-2 first flew over the Soviet Union on July 4, 1956, and flights continued until May 1, 1960 when (as discussed earlier) the Soviets successfully shot down the aircraft and captured its pilot, Francis Gary Powers. Manned reconnaissance deep into Soviet airspace ceased. After a long series of failures, a CORONA satellite finally returned film to earth on August 19, 1960, ironically, the same day that Powers was sentenced in Moscow to ten years in a Soviet prison. By 1961, CORONA missions routinely were producing intelligence that had dispelled the fear of a missile gap in favor of Russia. And for the purposes of this paper, as Ernest R. May has written in his review of the contribution of CORONA to American intelligence, "CORONA, by creating certainty regarding numbers of deployed missile launchers, made it practicable for the United States to propose negotiated agreements limiting that category of strategic weapons."94 The United States could approach arms control relying on what would come to be called "national technical means" of verification, providing assurance (as had been sought since the Baruch plan) that violation of an arms control agreement could be detected in sufficient time to take corrective action.

The third factor that made strategic arms control attractive to the United States was the growth in the early 1960s, first within academic circles and then brought into government deliberations, of a theory of arms control that viewed negotiated measures to stabilize the nuclear balance—to cap the arms race and to direct it in stabilizing directions—as a major objective for arms control, indeed, as a more important objective than actually reducing or eliminating nuclear weapons. The 1960 Cambridge summer study on arms control and the 1960-61

Harvard-MIT faculty seminar on arms control resulted in several publications that captured the thrust of the emerging theory. These views were brought into the Kennedy administration in 1961 and, by the time the strategic arms talks finally began in 1969, provided a conceptual framework that would dominate the American approach to the strategic arms control process for the rest of the Cold War.

The fourth major factor was the character of the arms race itself. In 1962, at the time of the Cuban missile crisis, the United States had a pronounced advantage in strategic offensive nuclear forces relative to those of the Soviet Union. One of the effects of the Cuban missile crisis on the Soviets was to reinforce the determination in Moscow to at least match, if not exceed, America's long-range nuclear offensive capability. Although American experts would continue to debate through the end of the Cold War whether strategic parity or superiority was the Soviet aim (a major question from the perspective of how to approach arms control negotiations), the facts on the ground were the same by the late 1960s; namely, a massive and growing Soviet offensive arms program across the board.

McNamara had capped US force levels unilaterally at 1,000 Minutemen missiles, 54 Titan missiles, and 656 submarine-launched ballistic missiles (SLBMs). He also had set in motion a reduction of the American bomber force to about 400 B-52s. The rationale behind these decisions involved an assessment that the US had more than enough strategic striking power to insure a robust second-strike capability, that US technology, as reflected for instance in multiple independently targeted reentry vehicles (MIRVs) for its strategic missiles (a capability first flight-tested in August 1968), could preserve America's technology lead, and that the Soviets could over time be led to accept the logic of mutual assured destruction.

In 1965, the Soviets had fewer than 200 ICBMs and 100 SLBMs. However, by 1969 their forces were growing at 200-300 launchers a year and were projected to overtake the US force levels by 1971. By the time of Nixon's inauguration, the politics of Vietnam had created a congressional environment hostile to any major military expansion. Thus strategic arms control appeared attractive as a means of avoiding what otherwise might become a pronounced Soviet offensive nuclear advantage in numbers of strategic offensive arms.

The Soviets clearly continued to respect American technology. Both countries had been pursuing ballistic missile defense programs since the late 1940s. In 1962 the Soviets began construction of their first antiballistic missile (ABM) sites around Moscow while they pursued testing of the system to be deployed initially at those sites but, potentially, nationwide. Meanwhile, the United States had an intense ABM research and development program underway. The Soviets could not be assured that over time, this program might not be deployed and that American technology and resources might not trump those of the Soviet Union.

Thus the stage had been set by the mid-1960s for strategic arms control. In 1964, when it still had a pronounced lead in deployed strategic systems, the Johnson administration proposed a freeze on strategic nuclear vehicles that would have preserved the American lead. This was summarily rejected by Moscow. At this point, the discussions on strategic arms, largely conducted at Geneva at the ENDC, remained much in the mode of many of the 1950 initiatives, i.e., offer something that either you intended to do anyway (such as the various American proposals to cut production in fissile materials) or that would preserve your advantages (the freeze proposals), and that would resound to your benefit even if rejected by the other side.

On January 27, 1966 the ENDC met in Geneva for the first of two sessions to be held during the year. This was the venue for the NPT negotiations, and William Foster, then head of ACDA, led the American delegation. As the session began, Foster tabled a seven-point program for the United States that included a freeze on numbers and characteristics of offensive and defensive strategic nuclear delivery vehicles. The Soviets opposed the American initiatives in Geneva and in the discussions held in Washington with Soviet Ambassador Dobrynin. But on March 17, 1966, on the margins of the talks in Geneva, the Soviets indicated to Foster that they wished to discuss the question of limiting ABMs. Foster reported back to Secretary Rusk. Rusk took the matter to the White House, and the next day—with the President's blessing—Rusk told Dobrynin in Washington that the United States would be glad to discuss the matter quietly with the Soviets on a bilateral basis. 97 Nothing transpired, and in a meeting in Washington in December 1966 between Dobrynin and ambassador-atlarge Llewellyn Thompson, Dobrynin again raised the issue, this time saying that the ABM question could be considered together with the problem of offensive strategic nuclear delivery systems (SNDVs). Dobrynin said he intended to take the matter up with Brezhnev and Kosygin immediately upon his return to Moscow. 98 Things continued to move slowly.

As bilateral US-Soviet talks in Geneva on the NPT matured in late 1966 and early 1967, the United States began pressing the Soviets on the importance, for purposes of securing global participation in an NPT regime, of the two superpowers being engaged in serious negotiations on their own nuclear forces. The Soviets were unresponsive, apparently reflecting uncertainty at the highest levels in Moscow on how to proceed. Following a strategy meeting at the LBJ ranch in

Texas in November, McNamara had announced publicly that the Soviets had begun deploying the Moscow ABM system. Pressure mounted in Congress for an American response. In a meeting with the President in December 1966, his senior national security advisers were at odds on whether to begin deploying the American ABM program. The JCS favored a large deployment starting immediately. McNamara, who initially had favored an ABM deployment, by now was convinced that an offense-defense arms race was pointless and would not improve American security. LBJ deferred decision.

On March 16, 1967, still uncertain whether Moscow would agree to strategic arms talks, Secretary Rusk directed his Under Secretary of State for Political Affairs, Charles Bohlen, to form an interagency committee to examine ACDA proposals on controlling the strategic arms race. In his report to Rusk in April 1968, Bohlen reported that the views he was recommending had the full approval of Ambassador Thompson and the Assistant Secretary of Defense for International Security Affairs. They concurred that the point of the talks should be as follows:

The main aim of the US in engaging the Soviets in negotiations on strategic missiles would be to reach an agreement which would maintain a stable US-Soviet strategic deterrent relationship, primarily by controlling the number of offensive and defensive missile launchers. Even if unsuccessful in this quest, the US would benefit indirectly from such talks. They would promote a better understanding of the concerns each side has in the developing missile race. Also, a new US-Soviet agreement to hold such talks, **if announced in the near future,** would help secure support for the NPT. ⁹⁹ (emphasis added)

The declassified record is unclear on what Rusk did with the memorandum. By mid-1967, the negotiations on the NPT were serious and intense. Pressure also was building on the Johnson administration to press ahead with ABM deployments, led by congressmen responsive

to the JCS arguments. And the Vietnam war was raging. In June 1967, at a hastily convened summit at Glassboro, New Jersey, Johnson had McNamara present to Kosygin the American views on nuclear stability and on the merits of banning ABM systems. Kosygin, reportedly unprepared for the discussions, countered that defending one's homeland was natural. With the presidential campaign of 1968 approaching and with ABM sure to be an issue, President Johnson in August 1967 decided to proceed with deployment of the Sentinal ABM system, using the strategic rationale that it would protect the United States from the emerging Chinese threat and from small unauthorized or accidental launches (it could not defend against a full-scale Soviet attack). Secretary McNamara announced this decision in a speech at San Francisco on September 18, 1967.

Two months later, in the annual parade in Red Square in November, the Soviets publicly displayed for the first time their SS-9 missile. This was the first of the "heavy" Soviet ICBMs that would dominate many of the subsequent negotiations. In 1968, as negotiations on the NPT approached closure, the Johnson administration stepped up the pressure on Moscow to set a date for beginning strategic arms talks. Finally in late June, the Soviets agreed. When the NPT was opened for signature on July 1, 1968, Washington and Moscow announced that bilateral strategic arms talks would begin later in the year.

As mentioned earlier, the Soviet invasion of Czechoslovakia in August 1968 placed much of the arms control agenda on hold. In November, with Vietnam war protests raging domestically, Richard Nixon defeated Hubert Humphrey for the presidency. The beginning of the strategic arms negotiations thus was left to the incoming Nixon administration.

The strategic arms talks that began informally on the margins of the ENDC in January 1966 and transitioned to formal negotiations in November 1969 resulted in a number of agreements: the interim agreement on strategic offensive arms, better known as SALT I, and the anti-ballistic missile treaty (1972); SALT II (signed in 1979, never entered into force); the treaty on intermediate-range nuclear forces, or INF (signed in 1987, entered into force in 1988); the strategic arms reduction treaty, or START I (signed in 1991, entered into force in 1994); START II (signed in 1993, never entered into force); and the treaty of Moscow, also known as the treaty on strategic offensive reductions, or SORT (signed in 2002). Of these treaties, INF, START I, and SORT still are in effect. INF is a treaty of indefinite duration. START I is a 15-year treaty that will expire on December 5, 2009, unless superseded earlier by a subsequent agreement, with the caveat that the parties are required to begin discussions no later than one year before expiration to consider whether to continue the treaty. The treaty of Moscow (or SORT) remains in force until December 31, 2012, and may be extended by agreement of the parties or superseded earlier by a subsequent agreement.

The story of the strategic and theater nuclear arms negotiations is complex, and the related American archival materials that document the development of American policy are massive and still largely classified. One thus depends in reconstructing the twists and turns of American policy in this area primarily on open sources such as memoirs and oral histories, on the impressive body of secondary literature that developed for nuclear arms control, and on the public portions of congressional testimony during ratification debates. Primarily for that reason, this section will not attempt to trace the evolution of US policy on strategic and theater arms control in the

detail used in the preceding sections on the Baruch plan, nuclear testing, and the NPT. Instead, it will summarize the several major agreements with the Russians from the early 1970s to today.

There are a number of good surveys of the topics addressed in this section, for instance, Forrest Waller's chapter-length essay in a recent college text on arms control, 100 David Thomson's book first written for the Los Alamos National Laboratory staff but now available to a wider audience, 101 the introductory essays for each treaty included in the Graham-LaVera compendium of treaties, ¹⁰² and the treaty-specific essays in the Naval Postgraduate School-Monterrey Institute Weapons of Mass Destruction encyclopedia. 103 There also are excellent analytic studies such as the 1985-1986 "Learning from Experience with Arms Control" project conducted at Harvard's John F. Kennedy School of Government for ACDA (and later updated to include the INF treaty); 104 the book by Abram and Antonia 'Toni' Chayes resulting in part from their examination of the workings of the Standing Consultative Commission (SCC) established by the SALT agreements: 105 and the compendium of essays published in the Winter 1991 issue of *Dædalus*, in honor of the special issue published in late 1960 on arms control (cited earlier in this paper). 106

The major agreements on strategic and theater nuclear arms reached with the Russians are the following:

• ABM Treaty. The first major bilateral nuclear arms control treaty between the United States and the Russians was the anti-ballistic missile (ABM) treaty, signed at the Moscow summit in May 1972. This turned out to be one of the most controversial national security agreements in American history. The ABM treaty and its subsequent protocols were intended to ban nationwide ballistic missile defense. The complicated provisions of the treaty addressed a range of restrictions. The treaty did not include verification measures beyond "national technical means of verification...[used] in a manner consistent with the generally recognized principles of international law." (article XII) In 1985, in an effort to pursue testing in the strategic defense

initiative (SDI) program, the Reagan administration attempted a "broad interpretation" of the treaty, arguing that no agreement existed in 1972 limiting the testing of ABM elements that use future technologies ("other physical principles"). Congress dissented and included language in the 1988 defense authorization bill that effectively denied funding for tests inconsistent with the narrower, more traditional interpretation of what was permitted. During much of the latter part of the Cold War, there was a debate in the United States whether Russia was violating the ABM treaty, e.g., in its construction of a large, phased-array radar with early warning capabilities near Krasnoyarsk, Siberia. After years of disagreement, Russia finally agreed to dismantle the Krasnovarsk radar. In 1985, as part of the umbrella talks that began with the Russians after Gorbachev came to power, potential revisiting of the ABM treaty regime was addressed in the defense and space talks (DST) in Geneva. After the demise of the Soviet Union, the Clinton and George W. Bush administrations discussed possible amendment of the ABM treaty with the Russians. With no fundamental progress in such talks, President Bush announced in December 2001 that the United States was giving the required sixmonth notification that it would exercise its "supreme national interest" clause and withdraw from the treaty. The ABM treaty expired in 2002 without the dire consequences, at least in the short run, forecast by many critics of the decision to terminate the treaty.

• **SALT I.** SALT I (the interim agreement on certain measures with respect to the limitation of strategic offensive arms) resulted from negotiations that began in November 1969 and continued through the Moscow summit in 1972. In these talks, the Russians first attempted to define "strategic" to include American nuclear-capable systems that were forward deployed, chiefly at sea and in NATO Europe. When the United States rejected this approach, the Russians attempted to get a stand-alone ABM treaty and threw up obstacle after obstacle to negotiating on offensive strategic nuclear arms. President Nixon's National Security Adviser, Henry Kissinger, shifted the offensive arms talks into his back-channel in the final phases of negotiations and made the compromises needed to get an agreement. The SALT I offensive arms agreement signed at the Moscow summit in May 1972 as a companion to the ABM Treaty was not a formal treaty but, as the name implies, an interim instrument intended to be in force for five years while a formal treaty was concluded. SALT I essentially froze the number for American strategic offensive forces at the level they were at in 1972—1054 ICBM launchers and 656 SLBM launchers (this could rise to 710 SLBM launchers if the United States retired its 54 Titan ICBM launchers). The Russians were allowed to build to 1618 ICBM

launchers and, if they retired older ICBMs, to build to a level of 950 SLBM launchers on SSBNs. The agreement also committed the sides not to convert land-based launchers for "light" ICBMs to ones for "heavy" ICBMs, but did not define what distinguished a "light" from a "heavy" ICBM. Although not a treaty, the interim agreement did go through extensive Senate hearings, and Senator Henry Jackson led the critics in demanding that future agreements must provide for "equal" levels in strategic arms. SALT I was an extremely short agreement, consisting of eight articles on two pages—roughly the length of the Treaty of Moscow of 2002. It did not address bombers or other strategic delivery systems like cruise missiles, and did not include intrusive verification measures.

SALT II. In November 1972, negotiations resumed (with a new American delegation) on a formal treaty on strategic offensive arms, to supersede SALT I. The new negotiations, which went through the summer of 1979, proved to be at least as difficult as those from 1969 to 1972. Bombers and cruise missiles now were discussed, the talks had to deal with the reality that the Russians were pursuing a major MIRV program for their ICBMs, the heavy ICBM issues remained largely unresolved, new Soviet bomber programs such as the Backfire were challenging, and mobile ICBMs became an issue. The United States (with Gerald Ford now President and with Kissinger continuing as the principal architect of the American position) finally achieved Russian consent to a framework for SALT II at the Vladivostok summit in November 1974: namely, aggregate ceilings of 2400 SNDVs (ICBMs, SLBMs, and "heavy" bombers), with a subceiling of 1320 for MIRVed systems (ballistic missiles and heavy bombers armed with air-launched cruise missiles, ALCMs). The incoming Carter administration, reportedly to satisfy Senator Jackson and like-minded critics of the talks, sent the new Secretary of State, Cyrus Vance, to Moscow in March 1977 to seek deep cuts from the Vladivostok numbers. The Russians resisted and negotiations returned to the Vladivostok formula. By the time of the Vienna summit in June 1979, a treaty had been achieved that used the Vladivostok numbers. with a further sublimit of 820 MIRVed ICBMs. The two sides disagreed on issues such as mobile ICBMs and sea-launched or groundlaunched cruise missiles (SLCMs or GLCMs), so these issues were relegated to a protocol of limited duration. SALT II was signed at Vienna on June 18, 1979, and submitted by President Carter to the Senate four days later. Ratification proceedings were underway when the Russians invaded Afghanistan in December 1979. At that time, SALT II was withdrawn from the Senate. The United States continued to abide by SALT II until 1986 when it was terminated to

accommodate the US program for converting B-52s to carry ALCMs (the US was approaching the 1320 sublimit on MIRVed systems). By the time SALT II expired, the strategic arms reduction talks (START) were underway.

- **INF.** In the mid-1970s, the Russians began replacing their older, intermediate-range SS-4 and SS-5 missiles with a new missile (SS-20) that was considerably more threatening to Europe. In October 1977 Helmut Schmidt gave a widely publicized speech at the International Institute for Strategic Studies, emphasizing that NATO would face a crisis of confidence if it did not move to counter the SS-20. The issue was taken seriously within the alliance, and at a special meeting of defense and foreign ministers in Brussels in late 1979, NATO adopted the two-track strategy of deploying modern American intermediate-range systems (Pershing II missiles and the Tomahawk GLCM) while simultaneously seeking an arms control agreement that might obviate the need for the new NATO deployments. Bilateral US-Russian theater nuclear force talks had just started when Carter was defeated by Ronald Reagan in November 1980, and were recessed awaiting the new administration. A number of officials in the incoming Reagan administration had been highly critical of the arms control approach since SALT I, and there thus was a strong undercurrent to change if not halt the process. However, pressures from NATO for the arms control branch of the two-track approach convinced the White House to begin the theater talks—now called INF—in late 1981. The United States proposed a "zero" option, i.e., elimination of all the longer-range Russian theater missile systems (SS-4, SS-5, SS-20) in return for not deploying Pershing II or GLCM. This proposal was announced publicly by President Reagan in a speech at the national press club on November 18, 1981, and negotiations began shortly thereafter in Geneva with the American INF delegation now led by Paul Nitze. Negotiations were suspended by Moscow after NATO proceeded with the deployment of Pershing II and GLCM in 1983. The talks resumed in early 1985 as part of the parallel negotiations on START and on defense and space. ¹⁰⁷ In early 1987, after the Revikavik summit, the Russians de-linked achieving an INF treaty from START, and after several rounds of intense negotiations, INF was signed in Washington in December 1987. INF banned all US and Russian land-based ballistic missiles and GLCMs in the 500-to-5500 kilometer range band, was of unlimited duration, and was the first such nuclear agreement to include intrusive inspection and other cooperative monitoring arrangements in its verification regime.
- <u>START I</u>. As mentioned earlier, the Reagan administration that took office in 1981 was highly critical of SALT process. President

Reagan and his national security team moved quickly to begin an across-the-board rearmament program. The White House was not in a hurry to resume strategic nuclear negotiations. The Soviet crackdown in Poland and internal divisions in the Reagan administration contributed to the delay. In early 1982, President Reagan finally approved the beginning of a new set of negotiations—strategic arms reduction talks (START)—with the aim of forcing deep cuts in the Soviet MIRVed ballistic missile forces that were seen as threatening American ICBM survivability. President Reagan revealed his intent to resume talks in a speech at his alma mater, Eureka College, on May 9, 1982. Negotiations resumed shortly thereafter in Geneva with General (retired) Edward Rowny leading the American delegation The START negotiations stretched over a number of years through the second Reagan term and into the George H. W. Bush administration, and produced what was one of the most complex treaties in diplomatic history. START I was signed in Moscow in July 1991. It set central limits on US and Russian strategic nuclear forces of 1600 SNDVs. 6000 accountable warheads (with complicated counting rules), 4900 accountable ballistic missile warheads, 1540 accountable warheads on 154 heavy ICBMs, and 1100 accountable warheads on mobile ICBMs. START I included a number of protocols addressing exchange of information, definitions, and the like. It also had an extremely intrusive verification regime. Like INF, START applied to some non-nuclear systems (e.g., all ballistic missiles with ranges over 600 km were banned from surface ships). The collapse of the Soviet Union in May 1992 delayed entry into force of START I until after succession and other issues were resolved. Succession was dealt with in the Lisbon protocol of May 1992 that recognized the successors to the USSR for the purposes of START to be Russia, Ukraine, Belerus, and Kazakhstan. START I entered into force on December 5, 1994. It is a treaty of fifteen years duration and thus expires on December 5, 2009, unless superseded by another agreement or extended by mutual consent of the parties. The parties are required to address the issue of extension, meeting for that purpose no later than one year before the expiration date.

• START II. In June 1992, at a summit with Boris Yelsin, president of the Russian Federation that came into existence with the collapse of the USSR six months earlier, President George H. W. Bush secured agreement that the two sides would build upon START I to create a new treaty that eliminated all MIRVed ICBMs including all heavy ICBMs, limit the number of SLBM warheads to no more than 1750, and reduce the overall total of warheads for each side to between 3000 and 3500. The United States produced a draft treaty text the

following month, and on January 3, 1993 Presidents Bush and Yeltsin signed a completed treaty (START II) in Moscow. START II eventually was ratified both in the United States (1994) and by the Russian Duma (2000), but with conditions that kept it from ever entering into force. The Duma explicitly linked the fate of START II to continued American compliance with the ABM treaty. When the United States gave notice of intent to withdraw from the ABM treaty, Russia formally withdrew its ratification of START II. That, coupled with no intent by the George W. Bush administration to revive the treaty, effectively renders it dead.

• <u>SORT.</u> On May 24, 2002, the United States and Russia signed the treaty on strategic offensive reductions, or SORT (also known as the Treaty of Moscow), establishing a limit of 1700 to 2200 "operationally deployed" warheads in each party's strategic forces by 2012. The formal agreement, done at the urging of the Russians, codifies American reductions initially announced when Presidents George W. Bush and Vladimir Putin met in Crawford, Texas, in November and in Moscow in December 2001. The Treaty of Moscow is very short—two pages—much as was SALT I. However, unlike SALT I, SORT relies in part on the START I verification regime. In transmitting the treaty to the Senate on June 20, 2002, the President wrote *inter alia:* "the Parties will use the comprehensive verification regime...of [START] to provide the foundation for confidence, transparency, and predictability in further strategic offensive reductions." ¹⁰⁸

TRANSITIONING FROM THE COLD WAR

In November 1988, George H. W. Bush defeated Michael Dukakis for the presidency. For ease of discussion, this paper will use the shorthand Bush-41 to distinguish the presidency of George H. W. Bush (the 41st president) from the later presidency of his son, George W. Bush (the 43rd president). In December 1988, Gorbachev came to New York to address the United Nations. He used the occasion to announce that the Soviet Union was changing its military doctrine to a more defensive mode, would unilaterally reduce Soviet armed forces by half a million troops over the next two years, and would withdraw several armored divisions from Eastern Europe by 1991. Gorbachev elaborated that the withdrawn units would be disbanded.

Although the transition was from one Republican administration to another, the START talks were recessed in early 1989 while the incoming administration conducted its own security reviews. In early 1989, nobody in a position of authority anticipated the revolutionary events of the next two years: the fall of the Berlin Wall and the collapse of communist regimes in Eastern Europe, the Soviet willingness to withdraw from its external empire without a struggle, a reunified Germany that remained within NATO, and the demise of the USSR.

The Bush-41 administration proceeded cautiously in the first few months of 1989. Gorbachev's dramatic announcements the preceding December had created a minor crisis within NATO, focused largely on the question of modernizing NATO's short-range nuclear forces (SNF). In May 1989, NATO heads of state and government met in Brussels to celebrate NATO's 40th anniversary. At that meeting, they adopted a document called the comprehensive concept of arms control and disarmament, calling for a serious attempt to accelerate the recently started talks on conventional forces in Europe (CFE) and agreeing to defer negotiations on SNF (which the Russians were calling for) until after CFE was completed and implemented. The United States reaffirmed its commitment to complete START. Over the next few months, the politics of SNF modernization, START, CFE, and German unification would be drawn together in a shifting mosaic of talks. So would United States preliminary talks with the Russians on the missile technology control regime (MTCR). Those talks began in Washington in early 1989, then shifted to Moscow in December.

The torrent of change accelerated when, on November 10, 1989, the Berlin Wall fell peacefully. The following month, NATO leaders met again at a summit where the question of German unification

dominated the discussions. In the spring of 1990, the Bush-41 administration adopted a fast-paced plan to address European security, drawing NATO's nuclear forces and strategy into the mix. The "two-plus-four" talks for German unification began in May 1990, shortly before Gorbachev came to Washington for a US-Soviet summit. An important element of the talks was a renewed pledge by the Germans not to develop a national nuclear weapons program. The Washington summit concluded with disagreement on the question of whether a unified Germany would remain in NATO.

As the two-plus-four discussions continued, the Bush-41 administration prepared an initiative for a NATO summit to be held in London in July 1991. The aim was to seek ways to reassure the Russians that a unified Germany in NATO would not threaten their interests—a formidable task. Out of this dynamic came American proposals to radically and unilaterally reduce nuclear forces in Europe if the Soviets would reciprocate, and to soften the tone of NATO's nuclear declaratory doctrine. At the NATO summit in Rome in November 1991, the allies—with Britain and France reluctantly acquiescing—adopted a new formulation of NATO doctrine that stated that nuclear weapons had, for NATO, become "truly weapons of last resort."

It was in this context that the START I treaty, described in the preceding section, came to closure. START I was signed in Moscow in July 1991. By that time, Russia was in a serious crisis with Soviet authority eroding daily. From January 1991 onward, Soviet domestic politics was overhung with the threat of a military crackdown to arrest the erosion of authority. One month after signature of START, a coup attempt against Gorbachev narrowly failed. Gorbachev never regained momentum. He resigned at the end of the year, the Soviet Union was

dissolved, and the Russian Federation was born with Boris Yeltsin as its first president. The collapse of the Soviet Union in December 1991 delayed entry into force of START I. Negotiations leading to the Lisbon Protocol of 1992 established the issue of succession (Russia, Ukraine, Belerus, and Kazakhstan were recognized as successors to the USSR for purposes of START). START I finally came into force in December 1994. It was a major success for American diplomacy to achieve agreement by Ukraine, Belerus, and Kazakhstan to give up their nuclear weapons and to join the NPT as non-nuclear-weapon states.

The US watched the growing chaos in Russia uneasily. A major question was the security of the large Soviet nuclear archipelago forces, stockpiles of weapons, research and production facilities, scientists, and the like. In September 1991 and again in January 1992, the President announced initiatives that would reassure the Russians and hopefully would be reciprocated where appropriate. American strategic bombers were taken off nuclear alert, the SRAM II program was cancelled, development of a small ICBM was terminated, and so forth. At theater level, the presidential nuclear initiatives (PNIs) included withdrawing 2400 non-strategic American nuclear weapons from overseas, eliminated all short-range nuclear forces, and withdrawing nuclear weapons from surface ships and attack submarines. At the behest of Senators Nunn and Lugar, the United States also launched the cooperative threat reduction (CTR) program to try to help secure and make safe the nuclear stockpiles and facilities of the former Soviet Union.

As described in the preceding section, START II was under negotiation while the above was unfolding. It was signed in January 1993, shortly before President George H. W. Bush left office.

Although START II achieved a long-standing American arms control objective—eliminating heavy and MIRVed ICBMs—the conditions now had changed dramatically from the Russian perspective.

Nevertheless, Boris Yeltsin, president of post-Soviet Russia, agreed to the treaty.

Bill Clinton took office in January 1993 as the first post-Cold War President. American security policy was shifting dramatically to address the circumstances of the new world order. The first Gulf War in the winter of 1990-1991 had renewed emphasis on the threats posed by proliferation of weapons of mass destruction to regional states. During 1993, the Clinton administration began developing a concept of counter-proliferation to supplement the diplomatic agenda of nonproliferation. In a speech to the National Academy of Sciences in December 1993, defense secretary Les Aspin announced the counterproliferation initiative. Strobe Talbott, the Clinton administration's new ambassador at large in the State Department for the new independent states of the former Soviet Union, and a long-time friend of President Clinton (dating to their days as fellow Rhodes scholars in England), writes in his memoirs that from the beginning of 1993 "Clinton saw strategic arms control as old business—unfinished, worthwhile and necessary, to be sure, but nonetheless not high on his agenda."109

At the first Clinton-Yeltsin summit in April 1993, at Vancouver, the sharpest US-Russian exchanges reportedly came on Russia's intent to build a nuclear reactor for Iran—a high-level exchange that Talbott recalls "augured years of trouble ahead." This was part of the refocusing of the US-Russian arms control relationship. On December 15, 1993, President Clinton named John Holum to head ACDA. Clinton writes in his memoirs:

[I] used the occasion to emphasize my non-proliferation agenda: ratification of the convention controlling chemical weapons, achieving a comprehensive nuclear test ban treaty, achieving permanent extension of the Nuclear Non-Proliferation Treaty (NPT), which expired in 1995, and fully funding the Nunn-Lugar program to secure and destroy Russian nuclear weapons and material.

Another issue that again came to the fore was missile defense. In 1989, prior to the first Gulf War, the United States already had refocused its strategic defense programs to emphasize kinetic-kill vehicles and, in February 1990, almost a year prior to the first Gulf War, the President in a comments at Lawrence Livermore National Laboratory expressed concern that new missiles threats to American interests, beyond those of the Soviet Union and China, were emerging. Iraq's Scud campaign during the first Gulf War validated these concerns. Increasing chaos in the Soviet Union also raised the concern of unauthorized or accidental launch of a missile. In January 1991 Senators Nunn and Warner cosponsored the missile defense act of 1991 which called for a global protection against launch system (GPALS), calling for 100 ground-based interceptors to be deployed within five years.

In 1993, the incoming Clinton administration emphasized a major theater missile defense (TMD) program while shifting national missile defense (NMD) to a slower track. The 1994 mid-term elections gave the Republicans control of both chambers of Congress, and a debate on national missile defense resumed. In 1995, Congress passed a measure for deploying a multi-site, ground-based national missile defense system by 2003. President Clinton vetoed this measure but signed an appropriation bill increasing NMD funding. With missile defense an issue in the 1996 presidential campaign, the Clinton administration

announced that it would pursue an NMD readiness program that could deploy defenses within three years once a threat was identified.

In March 1997 at a summit in Helsinki, the United States and Russia signed protocols that extended the START II elimination dates, established succession to the ABM treaty, and defined a formula for distinguishing testing of TMD from NMD interceptors. The package came under intense criticism in Congress. By 1998, Congress had established a commission to examine the ballistic missile threat, headed by Donald Rumsfeld. The commission delivered its report in July 1998, contradicting CIA estimates of how rapidly a ballistic missile threat to the continental United States could develop from nations such as North Korea, Iran, or Iraq. One month later, the North Koreans underscored this conclusion by unexpectedly launching a three-stage missile. By January 1999, President Clinton had increased funding for NMD and pledged to make a decision in 2000 for deployment of the first phase of a national missile defense. That would require either withdrawal from or amendment of the ABM treaty. In ongoing talks, the Russians resisted change to the ABMT. At the Helsinki summit, Clinton and Yeltsin also had agreed to START III force reduction goals of 2000-2500. The ongoing talks began to address whether even deeper cuts might be in order.

North Korea had triggered a crisis in March 1993 when it announced its intention to withdraw from the NPT. This crisis was ongoing when Kim II Sung, who had ruled North Korea for 49 years, died in July 1994, and a transition began for his son, Kim Jong II, to take power. The negotiations with the North Koreans resulted in October 1994 in an Agreed Framework arrangement which froze the North Korean nuclear program. That framework later would unravel. Russia would be one party among many (and, indeed, not the most

important party) in the multilateral talks that Washington would orchestrate to try to deal with the North Korean nuclear program.

As described earlier section, the NPT was extended indefinitely at the 1995 review and extension conference and a CTBT was opened for signature in 1996. Negotiations with Russia were not central to those activities. In May 1997, NATO and Russia signed a "founding act" that sought to engage Russia politically in an ongoing dialogue with NATO. This suffered a serious drawback in 1999 with the conflict in Kosovo.

At the Washington summit in April 1999 to celebrate NATO's 50th anniversary, NATO adopted a new strategic concept that left basically unchanged the NATO position on nuclear weapons. Coupled with NATO expansion, this triggered new criticism from Russia. Russia at the same time was becoming more reliant on nuclear weapons in its own national security concept. In the Russian bill of ratification for START II finally adopted by the Duma in April 2000, one of the conditions singled out as grounds for Russian withdrawal from the treaty was deployment of nuclear weapons on the territory of the states having joined NATO after the date of signature of START II.

Also in 1999, after 38 years in existence, ACDA was absorbed back into the State Department, under the new position of an Under Secretary of State for Arms Control and International Security.

In November 2000, George W. Bush defeated Al Gore for the presidency, and the Bush-43 administration took office the following January with the announced goals of reducing nuclear weapons to the lowest level appropriate for a new strategy (to be determined by a new nuclear posture review) and of deploying ballistic missile defenses. As already described in the preceding section, this resulted in withdrawal in 2002 from the ABM treaty and in the Treaty of Moscow or SORT.

The defining event for post-Cold War American national security was the terrorist attacks on September 11, 2001, triggering the United States to proclaim a global war on terror. This initially led to closer US-Russian relations, but the relations were severely strained by the Iraq war. They also have been strained by the continued dispute over the Iranian nuclear programs and by the threatening signs that Russia under Putin is becoming an increasingly authoritarian state.

The nexus of proliferation of weapons of mass destruction and terrorism has become a defining feature of the Bush-43 approach to proliferation problems and to arms control. While backing away from the formal arms control agenda that characterized US-Russian relations for much of the Cold War and for the early post-Cold War era, the Bush-43 policies seek to reinforce and strengthen the nuclear non-proliferation regime and to extend counter-proliferation efforts. In all these areas, national security negotiations with the Russians have been submerged into the broader multilateral agenda.

ASSESSING THE US-RUSSIAN NUCLEAR ARMS CONTROL EXPERIENCE

From the early 1960s onward, many in the American analytic community saw modern arms control as having three basic objectives: to reduce the risk of war; to limit the damage if war occurred; and to reduce the costs of armaments. Was the effort successful?

There is a broad (but not total) consensus that the arms control agreements helped stabilize the superpower competition during the Cold War and helped cultivate the thicket of circumstances that enabled the Cold War to end peacefully. In that sense, the US-Russian nuclear arms control experience contributed to reducing the risk of war. Some who embrace this view like Emanuel Adler argue even more broadly:

We will remember the Cold War for staying cold and ending cold. Its major crises, such as Cuba and Berlin, will slowly fade from our historical consciousness, as will the nightmares of Soviet tanks overrunning Western Europe and the memories of all those resources wasted on an arms race fueled by overblown suspicion and exaggerated threats. In retrospect, however, the most important legacy of the Cold War—its enduring contribution to international institutions and order—is the **practice of arms control**. (emphasis added)

Others disagree. Malcolm Wallop and Angelo Codevilla, for example, argued as the Cold War was ending that arms control with Russia had detracted from American security. This view is consistent with the effort to quickly get out of the ABM treaty and with the implicit policy to defer discussions with the Russians on whether START will be extended.

There is little evidence that for all of the efforts made, arms control rendered the nuclear forces of the two sides significantly less lethal in the event of war. Both sides still have large nuclear arsenal capable of destroying one another. The role of nuclear weapons has been reduced in American defense planning, given America's unmatched non-nuclear power, but nuclear weapons have become even more important in Russian defense planning, given Russia's conventional weaknesses.

Has US-Russian arms control saved money? Attempting to answer this question analytically would involve an almost impossible array of sub-analyses examining tradeoff costs. Many feel that in the round it did not. Arms control shut off certain avenues but opened others. Underground nuclear testing, for instance, was more complicated and expensive than open-air testing, and even in the absence of nuclear testing, the United States remains determined to retain a safe and reliable nuclear stockpile, which means investment in the technical capabilities to certify the nuclear stockpile absent explosive testing.

Proponents of the CTBT, like General (ret) John M. Shalikashvili, recognize this reality. ¹¹⁴

Were the specific goals of the various arms control negotiations achieved? The Baruch Plan sought to take nuclear weapons out of national hands. That did not happen. Atmospheric nuclear testing has ended and a plausible argument can be made that even if nuclear testing resumes, there will be enormous pressure not to test in the open. So one might conclude that the LTBT was successful over time, although not as a step toward an implemented CTBT since that does not appear likely, at least in the foreseeable future. The NPT regime is under challenge from countries like North Korea and Iran but, arguably, remains the norm. The strategic arms control process, at least from the American perspective, set out to eliminate first and foremost the most destabilizing and threatening ballistic missiles, heavy and highly-MIRVed Russian ICBMs. With the demise of START II, that goal was not achieved. As for INF, it eliminated an entire class of missiles for the United States and Russia, but not for other countries like China.

In a broader sense, assessing the success of arms control needs to go beyond the narrow perspective of matching negotiating objectives against outcomes. There are other ways to view the matter.

In the mid-1980s, for example, Albert Carnesale led a research project at the Kennedy School, sponsored by ACDA, to review the results of superpower arms control. He and his colleagues concluded:

What emerges above all is the modesty of what arms control has wrought. Expectations, for better or worse, for the most part have not been realized. The stridency of the debate, however, provides little clue to this modest reality; proponents and critics, liberals and conservatives, hawks and doves—all seem to exaggerate the potential and actual impact of arms control. If the history reveals anything, it is that arms control has proved neither as promising as some had hoped nor as dangerous as others had feared. ¹¹⁵

This study, which was well received at the time by the director of ACDA, Kenneth L. Adelman, did not of course incorporate the lessons of START. But it did examine a number of hypotheses and reached conclusions that arguably stand the test of time. The study concluded, for instance:

The historical record tends to support the contention that arms control negotiations and outcomes serve to reduce uncertainties in the estimates and projections that each participant makes about the other's forces. It is somewhat surprising that this aspect receives little attention in public debates about specific negotiations and accords. Indeed, reduction of uncertainty and enhancement of predictability may well be the principal contribution of the arms control experience. 116 (emphasis added)

This aspect of enhancing predictability was one of the major reasons that the American Joint Chiefs of Staff, for much of the arms control process from SALT onward, supported the negotiations as producing modest but useful results.

Another of the major reasons the JCS could reach such a conclusion was that the United States sought agreements, to use the arms control lexicon of the 1980s, that were "militarily sufficient," i.e., that allowed the United States to deploy military forces that could be expected to execute US military strategy at an acceptable level of risk if called upon to do so. Or as Carnesale and his colleagues concluded, the arms control arrangements codified circumstances for the superpowers that were "consistent with existing military force structures—that is, none required substantial changes in the nature of size of those forces." That was a judgment reached before the end of the Cold War. Several years later, many Russians would be questioning whether START II indeed was in their interest since it would require a major reshaping of their nuclear forces at a time when those forces were (in

their eyes) more important to their security and when they had fewer resources to spend for alternative systems.

From the late 1940s onward, a core principle of US arms control policy has been to enter into arms control arrangements only if the results did not damage American security. The bitter domestic debates over the years tended not to be about this *principle* (although some critics seemed to argue that all arms control agreements would work to the US disadvantage), but about the subjective assessments of what military strategy was appropriate at the time, what forces were needed to execute it with acceptable risk, and how arms control intersected those questions. The domestic debates also addressed how defense requirements should change over time, what risks were appropriate, and whether rigid treaty structures placed the nation at a significant disadvantage by prohibiting changes in force structure, posture, or capability (this was especially pronounced in the ABM debate).

The United States also sought agreements that were "effectively" verifiable, with much debate over what "effective" verification amounted to. Verification is a political process, not reducible to objective algorithms. The factors that go into making verification judgments invariably include incomplete and uncertain information. As described from NSC 112 onward, effective verification appeared to involve a reasonable prospect that militarily significant cheating could be discovered in time to allow appropriate and successful offsetting countermeasures. Obviously, the judgments on what cheating is militarily significant and whether the countermeasures are timely and likely to be successful leave much room for honest disagreement. And any verification concern has a downside. As Carnesale and his colleagues concluded, "The act of noncompliance, regardless of military significance, has taken on major political implications.

Noncompliance has eroded confidence in and support for the arms control process." ¹¹⁹

One of the things that arms control did during the Cold War for US-Russian relations, especially from the 1960s onward, was provide a structure and process for continued engagement and negotiation between the two superpowers. Bob Gates, for many years a CIA analyst and NSC staffer, later Director of Central Intelligence, writes in his memoirs

From the date of signature, SALT was controversial and it would become more so over time as the Soviets continued to expand their strategic capabilities.... Even so, I believe SALT and the SALT process were important and made a genuine contribution to keeping the superpower competition under control. The process itself was probably the most useful part. For the first time, the two sides sat down and began a dialogue about their nuclear weapons and, implicitly, their nuclear strategies. Military and civilian leaders on both sides were able to take the measure of one another and, at the same time, engage their political leaders in an unprecedented way in learning about the balance of terror. ¹²⁰

However, as others have pointed out, there is a danger in stressing process if it leads to ignoring undesired results. In January 1988, the commission on integrated long-term strategy, ¹²¹ co-chaired by Fred Iklé and Albert Wohlstetter, published its report. While stressing that US military strategy should include an arms control component, the report cautioned

The link between national security and arms control might seem obvious and noncontroversial: good arms control agreements will give us more security, possibly at a lower cost. But many people prefer to think of arms control as somehow taking place on a different plane from that of defense planning. A great deal of political rhetoric encourages them to believe that the ultimate point of arms control is not so much military as political. For many Americans and Europeans, the lure of these agreements is that they enable us to engage Soviet leaders in a "process," expected to develop a "momentum" of

its own, that will lead to understanding about other contentious matters and serve broadly to reduce international tensions.

This perspective could be a recipe for disaster. When arms control agreements are valued mainly for the international good they are expected to generate, and only secondarily for their effects on arms, then our political leaders will always be under pressure to reach agreements by making concessions on arms. Moreover, if an existing agreement is valued primarily as an expression of good will toward the Soviet Union, then it is much more difficult for American leaders to express concern about cheating by the Soviets, since these expressions will inevitably be translated on the political stage as a lack of interest in furthering the new relationship. 122

In fact, as Andrew Kohut, one of the deans of polling the public on attitudes toward major policy issues, concluded for the Aspen Strategy Group in their 1987 study, based on a study of over 40 years of polling data on the American public's attitudes toward arms control and nuclear weapons:

The public is receptive to any and all nuclear arms [control] proposals except those which imply a loss of military advantage or a reliance on the goodwill or trustworthiness of the Soviet Union.

and

The public's appetite for arms reduction is greatest when the balance of power is preceived [sp] to be in the US's favor or when there is parity between the superpowers. 123

This is consistent with the conclusion that Carnesale and his colleagues reached when testing the hypothesis that the arms control process and arms control agreements lull the United States into spending less than it should on defense. "There is little evidence," they found, "to suggest that either of the agreements limiting strategic offensive arms [SALT I and II] produced a direct lulling effect in the United States." 124

Joe Nye, who coined the term "soft power," also has written about the institutional effects the Cold War arms control experience, that is to

say, creating norms that shape expectations and constrain behavior.

"Thirty years," Nye observed in 1991, "has left a large residue of arms control institutions," a situation where

the institutional effects of arms control helped to shape expectations in ways that limit worst-case analyses, reassure allies as well as adversaries, and preserve areas of cooperation from the short-run vicissitudes of political change. They also provide opportunities for contacts which may contribute to learning. They do this by providing information that alters the way key participants understand their interests or see new cause and effect relationships. Included in this information are procedures for transparency and timely warning through inspection or verification which tend to discourage worst-case assumptions. From the perspective of learning and institutions, arms control may have played a more significant role in the changes of the past thirty years than one would give it credit for from the perspective of counting weapons or by the assumptions of traditional approaches to international politics. 125

In 2003, former arms control negotiator and Assistant Secretary of State for Arms Control, Avis Bohlen, wrote in a similar vein

The principal contribution of arms control today lies in the normative framework it helps to maintain. Defining rules about what is broadly acceptable to the international community remains essential to defining the kind of international order we wish to maintain. Even if the rules on their own are insufficient to maintain that order, they remain an important tool for combating proliferation. ¹²⁶

Finally, it is worth recalling that one of the major uses of the American proposal that Bernard Baruch presented to the United Nations in 1946 was to help assess the political willingness of other nations to step up to the first-order question that Fred Iklé raised in his classic article: after detection, what? Iklé wrote in 1961

The current debate on arms control and disarmament puts great stress on the problem of how to detect violations of whatever agreements may be reached.... Yet detecting violations is not enough. What counts are the political and military consequences of a violation once it has been detected, since

these alone determine whether or not the violator stands to gain in the end. In entering into an arms-control agreement, we must know not only that we are technically capable of detecting a violation but also that we or the rest of the world will be politically, legally and militarily in a position to react effectively if a violation is discovered. ¹²⁷

What did we learn from the negotiating experience with the Russians? A number of micro-lessons emerge from reviewing the memoirs of Presidents, National Security Advisers, Secretaries of State and Defense, chief negotiators, and the like. The following is a distillation of such lessons, ranging from the obvious to the counterintuitive and from the trivial to the serious. The list is divided into three categories: general observations on negotiations; observations on American negotiating behavior; and observations on Russian negotiating behavior.

General Obserations

- A key to success in arms control negotiations is preparation, hard work, and understanding the opponent's position (how they see the issues, what constraints they face, where they are going, how far they are ready to go, what they are after).
- Seek to persuasively make the case that your proposals are reasonable, not hostile to the opponent's purposes nor contrary to the opponent's interests.
 - Never waste a meeting, even when without instructions.
- Human relations are an integral part of diplomacy. A great deal of successful negotiation depends on the comfort level people have with one another. A good negotiator must be prepared to decide at what point marginal gains are outweighed by the loss of confidence caused by trivial haggling.
- Pay attention to detail. This is especially important in highly technical negotiations.
 - Keep a careful and complete record of what is said.
- Seek a common understanding of complicated technical concepts.

- It is difficult to anticipate the twists and turns that future technologies may take, that will impact on the specifics of the arms control agreement.
- Reach-back to Washington is an essential part of arms control negotiations.
- Don't be afraid of tabling maximalist objectives at the start of a negotiation, but be prepared to pursue them over what may be a long period of time to achieve results.
- Negotiation often involves attempts to bridge real differences. When difficult issues are involved, agreement may not be possible in the short run, although circumstances may change that can lead to agreement; it is important in such cases to clearly communicate existing concerns and firm goals.
- Agreement comes when both nations' interests appear to be served and/or not harmed.
- Negotiations involve a learning process for both sides—and sometimes serve the purpose of bridging different degrees of understanding and knowledge on the opponent's delegation.
- Plenary sessions, although formal and repetitious, serve an important purpose in allowing complex positions to be delivered in formal statements.
- Informal sessions are important for finding new directions for the negotiation. The right to probe—to discuss and explore without binding the nation—is an important element of arms control negotiations.
- Repetition is important. If an issue is vital, it should be raised over and over again—patiently, persistently, consistently, persuasively.
- Negotiations can be intense without being angry and confrontational.
- Negotiations in the interagency and with Congress are at least as demanding as arms control negotiations with the Russians.
- In dealing with the Russians bilaterally on the margins of multilateral negotiations, make sure to retain the confidence of your allies—keep them informed, solicit their ideas, understand their interests and concerns.

- Different agencies in the NSC system represent different institutional points of view on the substance, strategy, and tactics of arms control negotiations.
- Ambiguity may allow closure on a treaty, but also tends to invite activities that raise compliance concerns.
- Multiple channels for negotiations are useful if used skillfully with good coordination and integration. Negotiations by delegations at the ambassadorial level can refine options and polish conclusions, to turn over to ministers for reconciliation of differences, with summits reserved primarily to finalize agreements and to build consensus for ratification.
- Back channel negotiations can be useful¹²⁹: fewer people are involved, sensitive information can be protected more easily, exchanges can be informal and candid, barriers can be overcome. But back channels also are a mixed blessing: they can lead to confusion in negotiations and can produce compromises that, when reviewed more fully with more people involved, are seen to be counterproductive.
- Negotiations at summits also are a mixed blessing: decisions may be reached more quickly but it is difficult to extract the country from a bad negotiating position taken at a summit.
- Negotiations can be for propaganda purposes over and above any hope of substantive agreement. Media attention can be intense. A good public diplomacy strategy must be a part of any successful arms control negotiation.
- Democratic debate can complicate negotiations by exaggerating and dramatizing issues, sometimes to the point of distortion.
 - Beware of negotiations at the eleventh hour.
 - Don't confuse form with substance.

American Negotiating Behavior

- Extensive use of back channels gives the Russians a tactical advantage, allowing them to manipulate negotiations with the delegations when they see that the delegation's proposals are not backed at the top.
- Lack of continuity in delegation and backstopping expertise can be exploited by the Russians to tactical advantage.

• Patience is a virtue in negotiations but also may be hard for the United States to attain, especially since negotiations frequently must match the cycles and rhythms of presidential politics. America's opponents understand this and will try to wait for the pressure of democratic processes to produce US concessions.

Russian Negotiating Behavior 130

- When the opponent stalls, take it in stride. Russian negotiators like Dobrynin, when instructed to stall, could do it masterfully.
- For negotiators like Gromyko, it often appeared that there were no trivial issues. Every point was argued with tenacity.
- Negotiators like Gromyko mastered their briefs, knew the issue histories, and were sensitive to nuances.
- Negotiators like Gromyko could link every detail of a negotiation to every other detail, offering concessions conditionally, depending on movement on other issues.
- The Russians often began negotiations by demanding concessions as a price for sitting down at the bargaining table.
- The Russians would seek to wear their opponents down by haggling over general principles. Once those were agreed, haggling over implementation could be used to erode the opponent's positions on an issue. Be wary of how Russians use agreement in principle.

BROADER LESSONS

What can be said about the experience of negotiating arms control agreements with the Russians from 1945 through 2002 that is relevant to today's world? Obviously much has changed. During the Cold War, the United States was dealing with a closed society where a small group of men controlled Soviet policy, and the Soviet policy and decision process was heavily veiled. There was considerable debate in the West about what Soviet objectives actually were for much of the Cold War.

The United States also was involved in a military confrontation that threatened its most vital national interests, where nuclear weapons were at the center of the confrontation, where the opponent was

perceived to have superior conventional military power in the most important theater (central Europe), and where the threat of civilization-ending nuclear holocaust hung over the entire endeavor.

The environment for American policymaking also was different in important respects, e.g., much of the Cold War was not conducted under the glare of today's 24/7 media extravaganzas, enabled by modern information technology.

Finally, the arms control priorities of the American government focused for good reasons more on its bilateral relationship with Russia and less on the more diffuse multilateral regimes involving a number of centers of power. Multilateral negotiations took place and were treated seriously, but they did not ascend to the importance then of the US-Russian bilateral talks.

The list of differences could go on. Enough has been noted, however, to suggest that even with all the differences from the Cold War to today, some macroscopic lessons are in order for a world in which arm control continues to be important but has less emphasis in national strategy, in which the threats are significantly different, and in which multilateral regimes are more important than ever, especially for addressing terrorism and the proliferation of weapons of mass destruction.

<u>Lesson 1</u>: Keep priorities straight when engaging in arms control.

Arms control is an element of national strategy, not an activity to be pursued for its own sake or valued more highly than other tools. The major question is whether national security is protected and the national interest served, not whether arms control "succeeds" at any particular point in time.

<u>Lesson 2</u>: Arms control can reduce uncertainty and enhance predictability.

This arguably was the most important contribution of the US-Russian Cold War arms control experience for the United States.

Today, the Russians appear to value bilateral nuclear arms control more than the United States for exactly this reason.

<u>Lesson3</u>: Expect surprises during arms control negotiations.

Arms control negotiations cannot be insulated from external events in global politics. The gardening analogy that George Kennan and many others have used to describe foreign policy is also true for arms control. An unexpected hail storm can upset months of carefully laid plans. Be prepared to recover and persevere.

Lesson 4: After detection, what?

From the Baruch Plan onward, the premier question about verification was not whether cheating had happened, but what should be done about it. The arms control experience suggests that diplomacy to build the international consensus needed to enforce compliance is likely to be harder than the arms control negotiation itself.

<u>Lesson 5</u>: Good people and good practices are more important than specific forms of government organization, for devising arms control policy and for conducting negotiations.

The quality of negotiators and skill in conducting and supporting negotiation and the willingness to see arms control as a team effort are more important to success than how the United States organizes itself internally to address arms control policy.

"PRINCIPLES OF NEGOTIATIONS"—CLOSING REMARKS¹³¹

The US-Russian negotiating experience was a collaborative affair, often enhanced by the working relationships that the negotiators on both sides established with one another over time. That negotiations

could be conducted in a serious, professional way, but also could be extended to a lighter touch is exemplified in the remarks that Edward M. Ifft, a long-time American diplomatic participant in the process, made at the Soviet mission in Geneva on November 16, 1989, at a celebration of the 20th anniversary of the beginning of the strategic arms negotiations. The five "principles of negotiations" that Ifft proposed, reportedly well received by both the US and the Russian delegations present, are:

- *The Perverse Principle*. The two sides have the same positions, but never at the same time.
- *The Principle of the Conservation of Issues*. Whenever an issue is resolved, another issue will spontaneously appear to take its place.
- *The Comfort Principle*. Progress is inversely proportional to the comfort of the negotiators.
 - The Timing Principle. The negotiations take far too long.
- *The Painful Principle*. Every four years, the Soviet Union promotes its negotiators, while the United States purges its negotiators.

NOTES

¹ The fact that American foreign policy was isolationist for so many years does not mean that American diplomacy was anemic or unsuccessful. A number of excellent works have addressed this theme. See, for instance, Eugene V. Rostow, *Toward Managed Peace: The National Security Interests of the United States, 1759 to the Present* (New Haven, 1993); Walter A. McDougall, *Promised Land, Crusader State: The American Encounter with the World Since 1776* (Boston, 1997); Fareed Zakaria, *From Wealth to Power: The Unusual Origins of America's World Role* (Princeton, 1998); and Walter Russell Mead, *Special Providence: American Foreign Policy and How It Changed the World* (New York, 2001).

² Rostow, Toward Managed Peace, 16-17.

³Detlev F. Vagts of Harvard Law School makes this argument in his article "The Hague Conventions and Arms Control," *American Journal of International Law*, 94 (January 2000): 31.

- ¹⁰ Charles E. Bohlen, Witness to History: 1929-1969 (New York, 1973), 31.
- ¹¹ W. Averell Harriman with Elie Abel, *Special Envoy to Churchill and Stalin*, 1941-1946 (New York, 1975), 444.
- Alger Hiss, at Yalta as a member of the State Department, appears to have met every afternoon with Major General Mikhail Abramovich Milshtein, a Soviet intelligence officer under cover to the Soviet delegation as a military adviser, to pass on what the Americans were prepared to offer and what their fall-back positions were. This would only be revealed in later years through the successful decryption of the VENONA files. See Jerrold and Leona Schecter, *Sacred Secrets: How Soviet Intelligence Operations Changed American History* (Washington DC, 2002), 129-33. Also see John Earl Haynes & Harvey Klehr, *VENONA: Decoding Soviet Espionage in America* (Yale University, 1999), 167-73.
- ¹³ On April 11, 1945—the day before he died—Roosevelt responded to a cable from Churchill concerning dealing with the Russians. Roosevelt wrote: "I would minimize the Soviet problem as much as possible because these problems, in one form or another, seem to arise every day and most of them straighten out." Warren F. Kimball, ed., *Churchill & Roosevelt: The Complete Correspondence*, Vol. III (Princeton University, 1984), 630.
- ¹⁴Thomas C. Schelling and Morton H. Halperin, *Strategy and Arms Control* (Washington DC, 1985, reprint of the original 1961 publication), 1.
- ¹⁵ A Message From the President of the United States to Congress Transmitting a Request for the Enactment of Legislation To Fix a Policy Covering the Use and Development of the Atomic Bomb, October 3, 1945,

⁴ This is the definition quoted and adopted in the essay on "Arms Control" in *The Oxford Companion to Politics of the World* (Oxford, 1993).

⁵ Anatoly Dobrynin, In Confidence: Moscow's Ambassador to America's Six Cold War Presidents, 1962-1986 (New York, 1995).

⁶ James A. Baker, III, with Thomas M. DeFrank, *The Politics of Diplomacy: Revolution, War and Peace, 1989-1992* (New York, 1995), 71.

⁷ See, for instance, Condoleezza Rice, "Promoting the National Interest," *Foreign Affairs* 79 (January/February 2000): 45-62.

⁸ See John Lewis Gaddis, "Legacies: Russian-American Relations Before the Cold War," in Gaddis, *The Long Peace: Inquiries Into the History of the Cold War* (New York, 1987), 3-19.

⁹ George F. Kennan, *Memoirs: 1925-1950* (New York, 1967), 53.

reprinted as Appendix No. 4 in Department of State Publication 2702, *The International Control of Atomic Energy: Growth of a Policy* (Washington, March 31, 1947), 112.

- ¹⁶ President Truman's Address to the Nation on the Berlin Conference, August 9, 1945 (Excerpts), reprinted as Appendix No. 3 in Department of State, *The International Control of Atomic Energy*, 107.
- ¹⁷ Admiral William D. Leahy, Memorandum for the President from the Joint Chiefs of Staff, 23 October 1945, Top Secret, declassified August 29, 1975. Harry S. Truman Library, Papers of Harry S. Truman, President's Secretary's Files, Box 199.
- ¹⁸ See United Nations Department for Disarmament Affairs, *The United Nations and Disarmament, 1945-1985* (New York, 1985), 1.
- ¹⁹ These five assumptions, described as the core of official consensus in Washington at the time of the Baruch Plan, are outlined in Department of State *The International Control of Atomic Energy*, 1-2.
- ²⁰ Dean Acheson discusses preparation of the Acheson-Lilienthal report in chapter 17 of his memoirs, *Present at the Creation: My Years in the State Department* (New York, 1969), 149-56.
- ²¹ Quoted in Department of State, *International Control of Atomic Energy*, 38-9.
- ²²See The Baruch Plan: Statement by the United States Representative (Baruch) to the United Nations Atomic Energy Commission, June 14, 1946, in US Department of State, *Documents on Disarmament: 1945-1959*, Vol. I (Washington, August 1960), 7-16.
- ²³ See Address by the Soviet Representative (Gromyko) to the United Nations Atomic Energy Commission, June 19, 1946, in *Documents on Disarmament*, 1945-1959, Vol. I, 17-24.
- ²⁴ The UN Atomic Energy Commission and UN Commission for Conventional Armaments were consolidated in 1952 into a single Disarmament Commission composed of the members of the Security Council and Canada. This Disarmament Commission was enlarged in 1957 and again in 1958, to include all UN members. Such a large body was too unwieldy and in 1959, a Ten-Nation Committee on Disarmament (TNDC) was established with the East and West represented equally. In 1962 it was enlarged to become the Eighteen-Nation Committee on Disarmament (ENDC) with the addition of eight non-aligned nations. This became the Conference of the Committee on Disarmament (CCD) in 1969, with membership expanded to 26 nations, increased to 31 in 1975. The Committee on Disarmament replaced the CCD in 1979 and later was renamed the Conference on Disarmament (CD), charged with the task of

carrying forward the negotiating efforts of its predecessors. The CD meets in Geneva, defines its own rules of procedure, and develops its own agenda, taking into account the recommendations of the UN General Assembly. The CD reports to the General Assembly annually or more frequently as may be appropriate.

- ²⁵ "Resolution of the Commission for Conventional Armaments: Definition of Armaments, August 12, 1948," *Documents on Disarmament, 1945-1959*, Vol. I, 176.
- ²⁶ The declassified text of NSC 68 is reprinted in S. Nelson Drew, ed., *NSC-68: Forging the Strategy of Containment* (National Defense University, 1994). See pp. 72-75 for NSC 68's treatment of international control of atomic energy.
- ²⁷ NSC 112, Formulation of a United States Position With Respect to the Regulation, Limitation and Balanced Reduction of Armed Forces and Armaments, Washington, July 6, 1951, Department of State, *Foreign Relations of the United States*, 1951, Vol. I (Washington, 1979), 492. Hereafter, references in this paper to volumes from the Foreign Relations of the United States series will use the acronym FRUS.
- ²⁸Minutes of the Meeting of the Secretary of State with the Panel of Consultants on Disarmament, Washington, April 28, 1952, FRUS, 1952-1954, Vol. II, Part 2 (Washington, 1984), 898.
- ²⁹ Report by the Panel of Consultants of the Department of State to the Secretary of State, Washington, January 1953, FRUS, 1952-1954, Vol. II, Part 2, 1063.
- ³⁰ Ibid., 1086.
- ³¹ See chapter 14, "Reducing the Nuclear Danger: Arms Control," in Robert R. Bowie and Richard H. Immerman, *Waging Peace: How Eisenhower Shaped an Enduring Cold War Strategy* (New York, 1998), 222-41.
- ³² See J. Robert Oppenheimer, "Atomic Weapons and American Policy," *Foreign Affairs* 31 (July 1953): 525-35.
- ³³ Dwight Eisenhower, "Speech Before the United Nations, DDE,
 12/1953," originally top secret, declassified Oct 1971, Dwight D.
 Eisenhower Library, Ann Whitman Files, Ann Whitman Diary Series, Box
 4.
- ³⁴ See Lawrence Sheniman, *The International Atomic Energy Agency and World Nuclear Order* (Washington DC, 1987).
- ³⁵ See Robert A. Divine, *Blowing on the Wind: The Nuclear Test Ban Debate*, 1954-1960 (New York, 1978), 3-13.

³⁶ Memorandum from the President's Special Assistant (Rockefeller) to the President, Washington, July 11, 1955, in FRUS 1955-1957, Vol. V (Washington, 1988), 154.

³⁷ For a good case study of the bureaucratic politics of putting together the open skies proposal, see W. W. Rostow, *Open Skies: Eisenhower's Proposal of July 21, 1955* (University of Texas, 1982).

³⁸The most careful American biographer of Khrushchev, William Taubman, writes: "During the dinner at the American villa Eisenhower insisted passionately on the 'futility of war in the nuclear age,' saying that any nation that used nuclear weapons risked destroying itself since such a major conflict was likely to incinerate the Northern Hemisphere. Assistant Secretary Merchant later hailed this as [a] turning point: 'The most important result of the summit was to remove from the minds of the Soviet leaders any fear that the United States would attack Russia. The President, by his character and sincerity, convinced them of that [thus removing 'the genuinely dangerous risk of Soviet action based on a miscalculation of our own intentions.' But the real effect was almost the opposite. Khrushchev left Geneva 'encouraged, realizing now that our enemies probably feared us as much as we feared them.' That prompted him to practice nuclear bluster and bluff so as to play on American fears." *Khrushchev: The Man and His Era* (New York, 2003), 352.

³⁹ For a good discussion of the dynamics of the nuclear testing proposals and counterproposals during the Eisenhower and Kennedy years, see Glenn T. Seaborg with Benjamin S. Loeb, *Kennedy, Khrushchev, and the Test Ban* (Berkeley, California, 1981).

⁴⁰ FRUS, 1958-1960, Vol. III (Washington, 1996), 675.

⁴¹ Memorandum of a Conversation, Review of United States Policy on Control of Armaments, Department of State, Washington, January 4, 1955. FRUS 1955-1957, Vol. XX (Washington, 1990), 5.

⁴² Letter from the Commissioner of the Atomic Energy Commission (Murray) to the President, Washington, March 14, 1955, FRUS 1955-1957, Vol. XX, 56.

⁴³ Progress Report Prepared by the President's Special Assistant (Stassen), Washington, May 26, 1955. FRUS 1955-1957, Vol XX, 99-100.

⁴⁴ FRUS, 1958-1960, Vol. III, 534fn.

⁴⁵ For the memorandum of discussion at the NSC meeting, see FRUS, 1958-1960, Vol. III, 533-545.

⁴⁶ Edward Teller, "Alternatives for Security," *Foreign Affairs* 36 (January 1958): 201-208.

⁴⁹ The best single source describing the ratification process for the LTBT is Benjamin S. Loeb, "The Limited Test Ban Treaty," in Michael Krepon and Dan Caldwell, eds, The Politics of Arms Control Treaty Ratification (New York, 1991), 167-227. The six factors that Loeb identidies as being mainly responsible for successful ratification of the controversial LTBT are: (1) "The energy, dedication, and skill of President Kennedy—it now seems axiomatic that significant progress in arms control cannot be obtained without affirmative presidential leadership;" (2) "The president's credibility, gained largely through his resolute stands in the Berlin and Cuban missile crises, as a national leader who was willing to stand up to the Soviet Union;" (3) "Endorsements of the treaty by senators Jackson and Dirksen and by former President Eisenhower;" (4) "The influence of public opinion, as expressed in polls, congressional mail, and the activities of interest groups;" (5) "The early efforts, led principally by Hubert Humphrey, at building an infrastructure of opinion and organization favorable to arms control;" and (6) "Perhaps most important, Kennedy's decision to accept the four military safeguards, and the consequent endorsement of the treaty by the JCS." Ibid., 212.

⁴⁷ Seaborg, Kennedy, Khrushchev, and the Test Ban, 25.

⁴⁸ In addition to the LTBT, the movement forward in arms control spurred by the sobering experience of the Cuban missile crisis included the bilateral US-USSR agreement to install a hot line for crisis communication and the joint US-USSR declaration to the UN that they would not base nuclear weapons in outer space (that led several years later to the Outer Space Treaty). One insider in the American arms control community at the time, Raymond Garthoff, goes further to argue that "It is not too much to describe the movement forward in arms control from June to November 1963 as a significant beginning of détente." See Raymond L. Garthoff, *A Journey through the Cold War: A Memoir of Containment and Coexistence* (Washington, 2001), 167.

⁵⁰ These issues were the focus of discussion of General (ret) John M. Shalikashvili with a number of senators after the vote, when Shalikashvili was appointed special adviser on the CTBT.

⁵¹For a good discussion of McCloy and his role in American arms control, see Kai Bird, *The Chairman: John J. McCloy, the Making of the American Establishment* (New York, 1992).

⁵² Memorandum From the President's Adviser on Disarmament (McCloy) to President Kennedy, Washington, March 8, 1919, in FRUS, 1961-1961, Vol. VII (Washington, 1995), 16.

⁵³ For instance, the records of discussion of test ban policy on February 8, 1963 in the Cabinet Room of the White House show Kennedy saying: "the whole reason for having a test ban is related to the Chinese situation.

Otherwise, it wouldn't be worth the disruption and fighting with Congress...." FRUS, 1961-1963, Vol VII, 646.

- Memorandum of Conversation on Non-diffusion of Nuclear Weapons, Washington, August 8, 1962, FRUS, 1961-1963, Vol. VII, 541-47.
- ⁵⁵ NIE 4-63, Likelihood and Consequences of a Proliferation of Nuclear Weapons Systems, Washington, June 28, 1963, FRUS, 1961-1963, Vol. VII, 747.
- ⁵⁶ Memorandum for the President from Carl Kaysen, The White House, July 9, 1963. JFK Library, National Security Files, Box 265, 1.
- ⁵⁷ For context, see Michael O. Wheeler, "NATO Nuclear Strategy, 1949-90," in Gustav Schmidt, ed., *A History of NATO—The First Fifty Years*, Vol. 3 (London, 2001), 128-32.
- ⁵⁸ See Robert R. Bowie, *The North Atlantic Nations Tasks For the 1960s: A Report to the Secretary of State, August 1960* (Center for International Security Studies at Maryland, Nuclear History Program, 1991).
- ⁵⁹ NIE 23-62, The Outlook for West Germany, July 25, 1962. Lyndon Baines Johnson Library, National Security File, National Intelligence Estimates, Boxes 1-5, Folder 23, West Germany.
- ⁶⁰ Instructions for the Under Secretary of State for Political Affairs (Harriman), Washington, July 10, 1963, FRUS, 1961-1963, Vol. VII, 786-87.
- ⁶¹ The author bases this conclusion on a study of the archival record and on discussions with McGeorge Bundy and Carl Kaysen in the mid-1990s, years after the event.
- ⁶² For a description of Sino-Soviet relations at the time, see William Taubman, *Khushchev: The Man and His Era* (New York, 2003), 605.
- ⁶³ Director of Intelligence and Research, Department of State, Intelligence Note: Peiping Officially Rejects Test Ban Treaty, July 31, 1963. John F. Kennedy Library, National Security Files, Box 265.
- ⁶⁴ William Burr and Jeffrey T. Richelson, "Whether to 'Strangle the Baby in the Cradle': The United States and the Chinese Nuclear Program, 1960-64," *International Security*, 25 (Winter 2000/01): 54-99.
- ⁶⁵ Author's discussion with Robert Johnson, Washington, May 1995. Robert Johnson was the State Department official who led the interagency task force that produced the options for responding to China's acquisition of nuclear weapons.

⁶⁶ Memorandum for the President, The Implications of a Chinese Communist Nuclear Capability, April 17, 1964. Lyndon Baines Johnson Library, National Security File, Box 237, 2.

- ⁶⁸ Draft Position Paper, Non-proliferation of Nuclear Weapons, Washington, August 14, 1964, FRUS, 1964-1968, Vol. XI (Washington, 1997), 101.
- ⁶⁹ Memorandum of Conversation, Meeting of Committee of Principals, Washington, June 16, 1964, FRUS, 1964-1968, Vol. XI, 80.
- ⁷⁰ Selected Statements on Non-dissemination of Nuclear Weapons by President Johnson, Secertary of State Rusk, and Secretary of Defense McNamara, January-November, 1964. Lyndon B. Johnson Library, National Security Files, Boxes 6-7.
- ⁷¹ Office of the White House Press Secretary, Address of the President on Nationwide Radio and Television from the President's Office at the White House, October 18, 1964.
- ⁷² The members of the Gilpatric commission, in addition to the chairman, were Arthur Dean, Allen Dulles, General (ret) Alfred Gruenther, George Kistiakowsky, John McCloy, James Perkins, Arthur Watson, William Webster, and Herb York.
- ⁷³ NSAM 320, Task Force on Nuclear Proliferation, Washington, November 25, 1964. FRUS, 1964-1968, Vol. XI, 126.
- ⁷⁴ Memorandum of Conversation, New York, December 5, 1964, FRUS, 1964-1968, Vol. XI, 129.
- ⁷⁵ Memorandum of Conversation, US-Soviet Relations, Washington, December 9, 1964, FRUS, 1964-1968, Vol. XI, 135-40.
- ⁷⁶ A Report to the President by the Committee on Nuclear Proliferation, Washington, January 21, 1965, FRUS, 1964-1968, Vol. XI, 173.
- ⁷⁷ NIE 23-65, Prospects for West German Foreign Policy, April 25, 1965. Lyndon B. Johnson Library, National Security File, Boxes 1-5.
- ⁷⁸ Briefing Paper, NATO Problems, Visit of Chancellor Erhard, Washington, June 4, 1965. Lyndon B. Johnson Library, National Security Files, Box 191.
- ⁷⁹ For details of the McNamara initiatives at nuclear consultation, see Wheeler, "NATO Nuclear Strategy, 1949-1990," 131-132. The nuclear planning group (NPG) would hold its first meeting in April 1967.

⁶⁷ The best description of the early Chinese nuclear program continues to be John Wilson Lewis and Xue Litai, *China Builds the Bomb* (Stanford University, 1988).

⁸⁰ George Bunn, Arms Control by Committee: Managing Negotiations with the Russians (Stanford University, 1992), 73.

⁸¹ See the summary and analysis to the NPT in Thomas Graham, Jr., and Damien J. LaVera, *Cornerstones of Security: Arms Control Treaties in the Nuclear Era* (University of Washington, 2003), 98-107.

⁸² Tom Graham, Jr., *Disarmament Sketches: Three Decades of Arms Control and International Law* (University of Washington, 2002), 260.

⁸³ Rademaker Previews US Approach to Nonproliferation Conference, 28 April 2005, http://usinfo.state.gov.

⁸⁴ Raymond Aron, *On War*, translated from the French by Terence Kilmartin (New York, 1958, originally published in Paris in French, 1957), 26-27.

⁸⁵ The declassified text of SNIE 11-6-58, The Soviet Attitude Toward Disarmament, 24 Jun3 1958, is reprinted in the CIA History Staff's publication, *CIA Cold War Record: Selected Estimates on the Soviet Union, 1950-1959* (Washington, 1993), 281-96.

⁸⁶ Garthoff, A Journey through the Cold War, 46.

⁸⁷ Gerard Smith, *Doubletalk: The Story of the First Strategic Arms Limitation Talks* (Garden City, New York, 1980), 76.

⁸⁸ Henry Kissinger, White House Years (Boston, 1979), 149.

⁸⁹ Ibid., 78.

⁹⁰ Report by the Technological Capabilities Panel of the Science Advisory Committee, Washington, February 14, 1955. FRUS, 1955-1957, Vol. XIX (Washington, 1990), 41-56.

⁹¹ For a good political history of the U-2 program, see Michael R. Beschloss, *Mayday: The U-2 Affair* (New York, 1986).

⁹² Details of the CORONA program, and the codename itself, were not declassified until 1995. On the CORONA program, see Dwayne A. Day, John M. Logsdon, and Brian Latell, eds., *Eye in the Sky: The Story of the CORONA Spy Satellites* (Washington, 1998), and Philip Taubman, *Secret Empire: Eisenhower, the CIA, and the Hidden Story of America's Space Espionage* (New York, 2003).

⁹³ See Patricia McFate, "Surprise Attack Conference," Weapons of Mass Destruction: An Encyclopedia of Worldwide Policy, Technology, and History, Vol. II (Santa Barbara, California, 2005), 368.

⁹⁴ Ernest R. May, "Strategic Intelligence and US Security: The Contribution of CORONA," in *Eye in the Sky*, 28.

- ¹⁰¹ David B. Thomson, *A Guide to the Nuclear Arms Control Treaties* (Los Alamos, 2001).
- ¹⁰² Graham and LaVera, *Cornerstones of Security: Arms Control Treaties in the Nuclear Era*, op. cit.
- ¹⁰³ Weapons of Mass Destruction: An Encyclopedia of Worldwide Policy, Technology, and History, op. cit.
- ¹⁰⁴ Albert Carnesale and Richard N. Hass, eds, *Superpower Arms Control: Setting the Record Straight*, updated edition (Cambridge, Massachusetts, 1987).
- ¹⁰⁵ Abram Chayes and Antonia Handler Chayes, *The New Sovereignty: Compliance with International Regulatory Agreements* (Harvard University, 1995).
- 106 "Arms Control: Thirty Years On," Dædalus (Winter 1991).
- ¹⁰⁷ The arms control saga in the early part of the Reagan administration concerns not merely a different official American attitude toward negotiations, but also the problems in Moscow with an aging leadership. Brezhnev, who was visibly failing in the early Reagan years, died in November 1982, to be succeeded by Yury Andropov. Andropov also was ill and died in February 1984, to be succeeded by the geriatric Konstantin

⁹⁵ The results of the 1960-61 studies are most readily available in the Winter 1960/61 special issue of *Dædalus* entitled "Arms Control," in Donald G. Brennan, ed., *Arms Control, Disarmament, and National Security* (New York, 1961); and in Schelling and Halperin, *Strategy and Arms Control*, op. cit.

⁹⁶ Pavel Podvig argues that the Soviet goal was strategic parity with the United States, begun prior to 1962 but reinforced by the outcome of a crisis where the strategic superiority of the United States was clearly demonstrated. See Pavel Podvig, ed., *Russian Strategic Nuclear Forces* (MIT, 2001), 5-6.

⁹⁷ Memorandum of Conversation, ABM Systems, Washington, December 7, 1966. FRUS, 1964-1968, Vol. XI, 405 fn.

⁹⁸ Ibid., 407.

⁹⁹ Memorandum from the Deputy Secretary of State for Political Affairs (Bohlen) to Secretary of State Rusk, Washington, April 5, 1968, FRUS, 1964-1968, Vol. XI, 565.

¹⁰⁰ Forrest Waller, "Strategic Nuclear Arms Control," in Jeffrey A. Larsen, *Arms Control: Cooperative Security in a Changing Environment* (Boulder, Colorado, 2002), 99-117.

Chernenko. Chernenko's death in March 1985 finally brought Mikhail Gorbachev to power, and Gorbachev moved out briskly with arms control initiatives.

- ¹⁰⁸ US Department of State, Bureau of Arms Control, Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions, Letter of Transmittal, The White House, June 20, 2002.
- ¹⁰⁹ Strobe Talbott, *The Russia Hand: A Memoir of Presidential Diplomacy* (New York2002), 43.
- ¹¹⁰ Ibid., 66.
- ¹¹¹ Bill Clinton, My Life (New York, 2004), 559.
- Emanuel Adler, "Arms Control, Disarmement, and National Security:A Thirty Year Retrospective and a New Set of Anticipations," *Dædalus* (Winter 1991): 1.
- ¹¹³ Senator Malcolm Wallop and Angelo Codevilla, *The Arms Control Delusion: How Twenty-Five Years of Arms Control Has Made the World Less Safe* (San Francisco, 1987).
- ¹¹⁴ See General John M. Shalikashvili (USA, Ret.), Special Advisor to the President and the Secretary of State, Findings and Recommendations Concerning the Comprehensive Nuclear Test Ban Treaty, January 2001.
- ¹¹⁵ Carnesale and Haass, Superpower Arms Control, 1987, 355.
- ¹¹⁶ Ibid., 344-45.
- ¹¹⁷ Ibid., 344.
- ¹¹⁸ There are a number of good discussions of the political complexities of verification. See, for instance, Michael Krepon, "The Politics of Treaty Verification and Compliance," in Kosta Tsipis, David W. Hafemeister, and Penny Janeway, eds, *Arms Control Verification: The Technologies That Make It Possible* (Washington, 1986), 20-32; Lewis A. Dunn with Amy E. Gordon, *Arms Control Verification & the New Role of On-Site Inspection* (Lexington, Massachusetts, 1990); and Joseph F. Pilat, "Verification and Transparency: Relics or Future Requirements," in Larsen, *Arms Control: Cooperative Security in a Changing Environment*, 79-96.
- ¹¹⁹ Carnesale and Haass, Superpower Arms Control, 348.
- 120 Robert M. Gates, From the Shadows (New York, 1996), 45.
- ¹²¹ Other members of the commission were Anne L. Armstrong, Zbigniew Brzezainski, William P. Clark, W. Graham Claytor, Jr., Andrew J.

Goodpaster, James L. Holloway, III, Samuel P. Huntington, Henry A. Kissinger, Joshua Lederberg, Bernard A. Schriever, and John W. Vessey.

¹²² The Commission on Integrated Long-Term Strategy, *Discriminate Deterrence* (Washington, January 1988), 41.

¹²³ Andrew Kohut, "Strability and Change in Opinions About Nuclear Weapons Policy, 1945-1987," in *Deep Cuts and the Future of Nuclear Deterrence: An Aspen Strategy Group Report* (Lanham, Maryland, 1989), 46.

¹²⁴ Carnesale and Haass, Setting the Record Straight, 350.

¹²⁵ Joseph S. Nye, Jr., "Arms Control and International Politics," *Dæedalus* (Winter 1991): 155-58.

¹²⁶ Avis Bohlen, "The Rise and Fall of Arms Control," *Survival* 45 (Autumn 2003): 31-32.

¹²⁷ Fred Charles Iklé, "After Detection—What?" *Foreign Affairs* 39 (January 1961): 208.

¹²⁸A number of books were reviewed in conducting this study. The ones found most useful for purpose of the list of micro-lessons from negotiating with the Russians on arms control, listed by date of publication, are: Henry Kissinger, White House Years (Boston, 1979); Henry Kissinger, Years of Upheaval (Boston, 1982); Zbigniew Brzezinski, Power and Principle: Memoirs of the National Security Adviser, 1977-1981 (New York, 1983); Cyrus Vance, Hard Choices: Critical Years in America's Foreign Policy (New York, 1983); McGeorge Bundy, Danger and Survival: Choices About the Bomb in the First Fifty Years (New York, 1988); Paul H. Nitze with Ann M. Smith and Steven L. Rearden, From Hiroshima to Glassnost: At the Center of Decision—A Memoir (New York, 1989); Max M. Kampelman, Entering New Worlds: The Memoirs of a Private Man in Public Life (New York, 1991); Edward L. Rowny, It Takes One to Tango (Washington, 1992); George P. Schultz, Turmoile and Triumph: My Years as Secretary of State (New York, 1993); James A. Baker, III, , The Politics of Diplomacy: Revolution, War & Peace, 1989-1992, op. cit.; Henry Kissinger, Years of Renewal (Boston, 1999); Strobe Talbott, The Russia Hand: A Memoir of Presidential Diplomacy (New York, 2002); Jack F. Matlock, Jr., Reagan and Gorbachev: How the Cold War Ended (New York, 2004).

¹²⁹ In the arms control lexicon, a "back channel" is a private forum for US-Russian arms control discussions and negotiations, separate from the normal diplomatic channels.

¹³⁰ This study has not attempted to describe the arms control negotiations from the Russian point of view; however several works were consulted to

gain an overall impression of some representative Russian comments. The works consulted include: Andrei Gromyko, *Memoirs*, trans. by Harold Shukman (New York, 1989); Michael Mandelbaum, ed., *The Other Side of the Table: The Soviet Approach to Arms Control* (New York, 1990); Albert Resis, ed, *Molotov Remembers: Inside Kremlin Politics, Conversations with Felix Chuev* (Chicago, 1993); Anatoly Dobrynin, *In Confidence: Moscow's Ambassador to America's Six Cold War Presidents, 1962-1986* (New York, 1995); Aleksandr' G. Savel'yev and Nikolay N. Detinov, *The Big Five: Arms Control Decision-Making in the Soviet Union*, trans. by Dmitriy Trenin (Westport, Connecticut, 1995).

¹³¹ The author wishes to thank Ed Ifft for searching in the archives in his crawl space to resurrect these principles. E-mail communication from Edward M. Ifft to Michael O. Wheeler, May 23, 2005.